

MASSACHUSETTS EXPORTS 2000

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Massachusetts Exports 2000

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I. Executive Summary

Massachusetts had the strongest annual export growth of any Northeast State in the year 2000. Its 21% increase was much larger than both regional growth of 15% and national growth of 13%. Massachusetts and regional shipments expanded faster in the new millennium than in any year in the past decade. Massachusetts has had a long history of successful exporting of goods and services, but this success slowed a bit in the decade of the 1990s. While the current report focuses more on goods than on services and while Massachusetts is becoming increasingly service oriented, the Commonwealth's exports nonetheless nearly doubled, increasing by 90% in the decade, just a little over 8% less than the U.S. Within the State's export economy, there have been big winners and big losers. Electronic and electrical equipment has more than tripled, rising quite steadily over the decade. Instruments and chemicals also, have steadily risen, more than doubling. However, industrial machinery and computer equipment and fabricated metal products have been quite stationary.

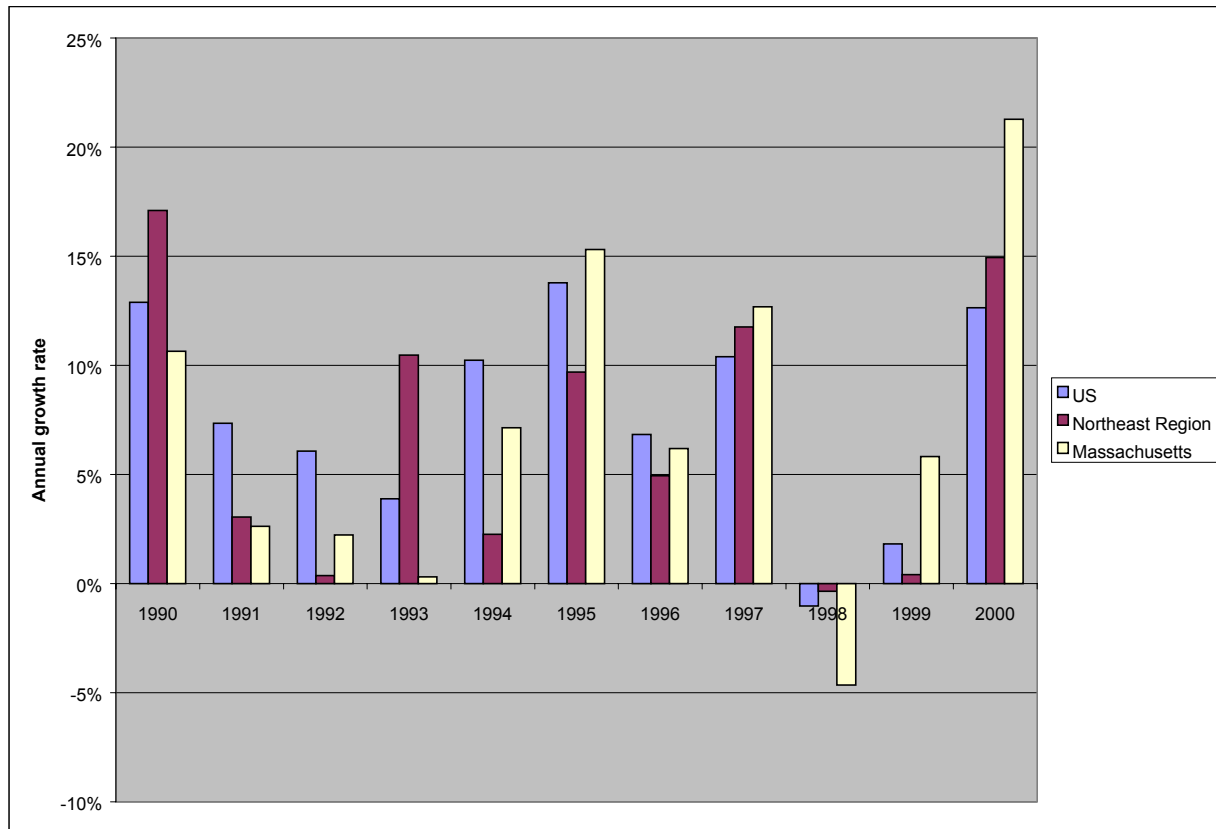
The hottest commodity in electronic and electrical equipment is apparatus for line telephony, representing more than 20% of the exports of the industry. Another 20% is represented by a series of related commodities: metal oxide semiconductors (MOS integrated circuits), electronic monolithic integrated circuits, and digital monolithic integrated circuits, the second, third, and fourth largest commodities of the industry. These have all contributed significantly to strong growth in the State. Instruments for checking the consistency of semiconductor wafers has also been a leading contributor, adding \$340 million in new exports between 1999 and 2000. In chemicals, Massachusetts is more balanced showing no commodity representing much more than \$200 million—top among them medicaments in measured doses in retail packaging; hormones and derivatives and steroids; composite diagnostic lab reagents; and antisera and blood fractions and immunology products.

Slow expansion in industrial machinery and computers was a predominant factor in the State's slow export growth in the 1990s. Even moving into 2000, tremendous growth in particle accelerators and ion implanters for semiconductors and beverage filtering machines and parts was dampened by declines in parts and accessories for automatic data processing machines, automatic data processing units, and turbojets and turbojet propeller parts. Nevertheless, the industry posted its first positive growth rate, 15.6%, since 1997.

Canada has been Massachusetts' largest export destination throughout the 1990s undoubtedly because of proximity. However, Massachusetts' growth to Canada was only 72% over the decade, slower than the State's average growth to the world (90%) and slower than national growth to Canada (114%). Growth to other top markets including Netherlands, Germany, UK, and Japan, was also slower than the State average growth (although the decline to Japan occurred early in the decade and after 1992 Massachusetts exports more than doubled to Japan.) However, consistent with a successful restructuring of industries and markets, many Massachusetts markets in the next tier exceeded average State growth: Taiwan 304%, France 118%, Korea 182%, Mexico 313%, and Singapore 189%. From this, it appears that Massachusetts may well have driven through a successful economic conversion.

II. INTRODUCTION

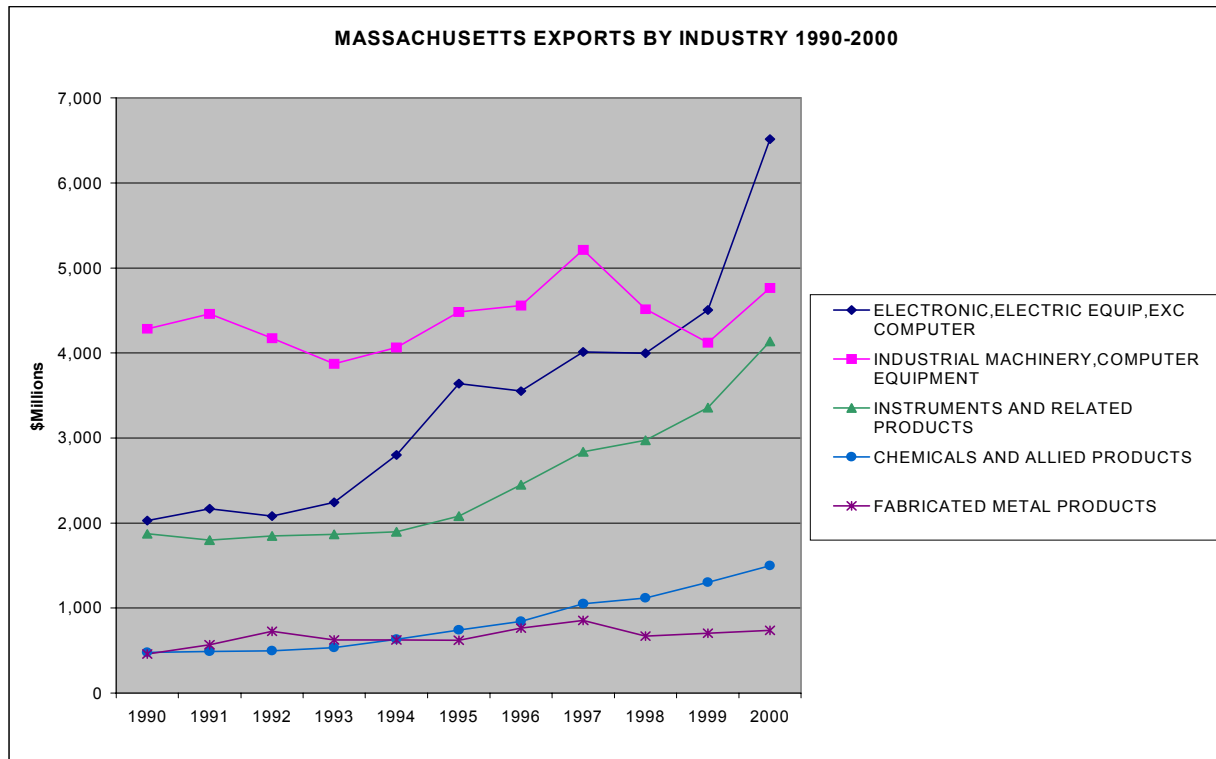
Massachusetts, Northeast, and US Annual Export Growth 1990 – 2000



Annual Export Growth Rates	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	1990-2000
US	12.88	7.35	6.07	3.89	10.23	13.78	6.83	10.40	-1.04	1.81	12.64	98.59
Northeast Region	17.10	3.06	0.37	10.47	2.25	9.70	4.94	11.77	-0.36	0.41	14.95	72.88
Massachusetts	10.65	2.63	2.24	0.31	7.13	15.31	6.19	12.68	-4.64	5.81	21.28	90.40
Value of Exports (\$Billions)	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	
US	392.98	421.85	447.47	464.86	512.42	583.03	622.83	687.60	680.47	692.82	780.42	
Northeast Region	75.57	77.89	78.17	86.35	88.30	96.86	101.65	113.61	113.20	113.66	130.65	
Massachusetts	11.59	11.89	12.16	12.19	13.06	15.07	16.00	18.03	17.19	18.19	22.06	

Bay State exports soared to reach \$22 billion in the year 2000. Massachusetts' annual export growth of 21.3% far outpaced regional growth of 15% and national growth of 12.6%. Massachusetts' growth frequently lagged behind regional and national growth in the early nineties, but it generally exceeded Northeast and US growth in the late nineties and into 2000. While Massachusetts' exports were hit harder in 1998 than the nation and the Northeast region by affects of the Asian crisis, the state made a stronger recovery in 1999. In 2000 both Massachusetts and Northeast exports grew faster than in any year in the past decade. Of the ten Northeast states, Massachusetts had the highest annual export increase in the year 2000.

III. MA EXPORTS INDUSTRIAL AND COMMODITY PERFORMANCE



Like that of many Northeast states, Massachusetts' industrial export mix shifted substantially over the past decade. Electronic and electric equipment surpassed industrial machinery and computers in 1999 as the state's leading export. The gap between machinery and computers and instruments also nearly closed by 2000. Although dwarfed in comparison to the state's top three industries, the fourth largest, chemicals and allied products grew almost as quickly as electronics over the decade. The fifth largest, fabricated metals, increased much more slowly. Massachusetts export losses in 1998 were primarily the result of large declines in shipments of industrial machinery/computers to Asia and Canada, large declines in fabricated metals to Asia, and smaller declines in electronics to Asia and Canada. Declines in machinery and computers to Canada continued in 1999, while the other industries rebounded. In the year 2000 all five leading industries had strong export increases.

Table 1 shows Massachusetts top 20 export industries and top 10 gains and losses by industry in the year 2000. The most dramatic increase occurred in electronics, up \$2 billion (45%) in 2000. There were strong gains in many other industries, the largest of which were in instruments and related products, machinery and computers, chemicals, and primary metals (including gold). Impressive gains were also made in paper, used or second hand merchandise (including valuable artwork), stone, clay, and glass products, and scrap and waste. The largest losses occurred in transportation equipment, printing and publishing, and apparel and textile products.

Table 1
Massachusetts Exports by Industry
Top 20 Commodities, Top 10 Gains and Losses 1999-2000

	SIC	TOP 20 INDUSTRIES	1999	2000	%98-99	%99-00	\$Incr 99-00	%US
		TOTAL ALL INDUSTRIES	18,190,114,782	22,061,446,586	5.81	21.28	3,871,331,804	2.83
1	36	ELECTRONIC,ELECTRIC EQUIP,EXC COMPUTER	4,506,524,243	6,517,664,884	12.76	44.63	2,011,140,641	4.55
2	35	INDUSTRIAL MACHINERY,COMPUTER EQUIPMENT	4,121,133,797	4,766,023,878	-8.74	15.65	644,890,081	3.35
3	38	INSTRUMENTS AND RELATED PRODUCTS	3,356,529,443	4,136,706,232	12.91	23.24	780,176,789	8.25
4	28	CHEMICALS AND ALLIED PRODUCTS	1,300,433,969	1,497,011,074	16.31	15.12	196,577,105	1.90
5	34	FABRICATED METAL PRODUCTS	703,141,259	738,810,992	5.08	5.07	35,669,733	2.84
6	37	TRANSPORTATION EQUIPMENT	765,489,166	694,719,285	9.68	-9.25	-70,769,881	0.57
7	33	PRIMARY METAL INDUSTRIES	382,818,751	508,492,607	-10.40	32.83	125,673,856	2.00
8	30	RUBBER AND MISC. PLASTICS PRODUCTS	494,440,206	496,015,947	10.50	0.32	1,575,741	2.54
9	26	PAPER AND ALLIED PRODUCTS	395,512,464	467,742,466	6.07	18.26	72,230,002	2.86
10	99	SPECIAL CLASSIFICATION PROVISIONS, NSPF	355,299,149	340,390,437	581.24	-4.20	-14,908,712	5.25
11	39	MISC. MANUFACTURING INDUSTRIES	290,138,467	304,632,543	9.56	5.00	14,494,076	2.23
12	22	TEXTILE MILL PRODUCTS	235,515,888	263,910,047	-13.24	12.06	28,394,159	2.88
13	20	FOOD AND KINDRED PRODUCTS	249,708,343	259,764,028	-8.90	4.03	10,055,685	0.92
14	9	FISHING, HUNTING, AND TRAPPING	241,911,118	236,870,671	9.85	-2.08	-5,040,447	8.74
15	32	STONE, CLAY, AND GLASS PRODUCTS	106,176,024	140,963,591	5.46	32.76	34,787,567	1.67
16	91	SCRAP AND WASTE	95,180,353	125,437,101	-23.93	31.79	30,256,748	2.45
17	27	PRINTING AND PUBLISHING	155,701,596	123,397,955	-11.81	-20.75	-32,303,641	2.36
18	31	LEATHER AND LEATHER PRODUCTS	76,066,132	73,035,185	-19.43	-3.98	-3,030,947	2.72
19	95	CHARITY,MILITARY NIK,SHIPMENTS<10K NIK	69,145,796	71,925,244	-6.17	4.02	2,779,448	2.05
20	92	USED OR SECOND-HAND MERCHANDISE	25,687,056	64,660,481	-40.48	151.72	38,973,425	1.60
	SIC	TOP 10 GROWTH INDUSTRIES	1999	2000	%98-99	%99-00	\$Incr 99-00	%US
1	36	ELECTRONIC,ELECTRIC EQUIP,EXC COMPUTER	4,506,524,243	6,517,664,884	12.76	44.63	2,011,140,641	4.55
2	38	INSTRUMENTS AND RELATED PRODUCTS	3,356,529,443	4,136,706,232	12.91	23.24	780,176,789	8.25
3	35	INDUSTRIAL MACHINERY,COMPUTER EQUIPMENT	4,121,133,797	4,766,023,878	-8.74	15.65	644,890,081	3.35
4	28	CHEMICALS AND ALLIED PRODUCTS	1,300,433,969	1,497,011,074	16.31	15.12	196,577,105	1.90
5	33	PRIMARY METAL INDUSTRIES	382,818,751	508,492,607	-10.40	32.83	125,673,856	2.00
6	26	PAPER AND ALLIED PRODUCTS	395,512,464	467,742,466	6.07	18.26	72,230,002	2.86
7	92	USED OR SECOND-HAND MERCHANDISE	25,687,056	64,660,481	-40.48	151.72	38,973,425	1.60
8	34	FABRICATED METAL PRODUCTS	703,141,259	738,810,992	5.08	5.07	35,669,733	2.84
9	32	STONE, CLAY, AND GLASS PRODUCTS	106,176,024	140,963,591	5.46	32.76	34,787,567	1.67
10	91	SCRAP AND WASTE	95,180,353	125,437,101	-23.93	31.79	30,256,748	2.45
	SIC	TOP 10 LOSSES BY INDUSTRY	1999	2000	%98-99	%99-00	\$Incr 99-00	%US
1	37	TRANSPORTATION EQUIPMENT	765,489,166	694,719,285	9.68	-9.25	-70,769,881	0.57
2	27	PRINTING AND PUBLISHING	155,701,596	123,397,955	-11.81	-20.75	-32,303,641	2.36
3	23	APPAREL AND OTHER TEXTILE PRODUCTS	64,534,554	41,317,798	-20.37	-35.98	-23,216,756	0.42
4	99	SPECIAL CLASSIFICATION PROVISIONS, NSPF	355,299,149	340,390,437	581.24	-4.20	-14,908,712	5.25
5	24	LUMBER AND WOOD PRODUCTS	44,139,077	37,429,575	35.20	-15.20	-6,709,502	0.55
6	25	FURNITURE AND FIXTURES	61,232,195	55,046,434	31.83	-10.10	-6,185,761	1.96
7	29	PETROLEUM AND COAL PRODUCTS	10,165,395	4,614,989	36.00	-54.60	-5,550,406	0.05
8	9	FISHING, HUNTING, AND TRAPPING	241,911,118	236,870,671	9.85	-2.08	-5,040,447	8.74
9	1	AGRICULTURAL PRODUCTION-CROPS	25,606,820	21,203,034	-28.37	-17.20	-4,403,786	0.09
10	31	LEATHER AND LEATHER PRODUCTS	76,066,132	73,035,185	-19.43	-3.98	-3,030,947	2.72

Another important way to view a state's export performance is to look at the state's share of total US exports. The last column of **Table 1**, with the heading "%US", shows Massachusetts's share of total US exports in each industry. Overall, Massachusetts' contribution to total US exports was 2.83% in 2000. Therefore, any industry with a share greater than 2.83% can be considered an export industry of specialization for Massachusetts. Of the state's leading 20 export industries, its highest levels of specialization are in fishing with 8.7% of total US shipments, instruments and related products (8.2%), special classifications including laser discs and software (5.2%), electronic and electric equipment (4.6%), and industrial machinery and computers (3.4%).

Table 2.1 shows the leading commodities comprising each of Massachusetts's top 10 industries. For the first time, in early 2000, the US Census Bureau made available data on state exports by 4,500 highly detailed, 6-digit HS (Harmonized System) commodities. Prior to 2000 statistics on state exports were limited to 34 broad 2-digit SIC (Standard Industrial Classification) industries.

In this new look at the composition of the state's export shipments, many commodities stand out with extremely high rates of growth in 2000 and many shine with very high shares of US total exports. For example, Massachusetts' largest export industry, electronic and electric equipment, is dominated by \$1.5 billion in parts of electrical apparatus for line telephony, up 90% in 2000 and accounting for 22% of total US exports of that commodity. Growth was nearly as strong at 70% in the state's second leading electronics component, metal oxide semiconductors, but Massachusetts exports only 2.1% of the US total. Massachusetts' machinery and computer exports were led by computer parts and accessories, but growth was much stronger in, and the state is more specialized in, particle accelerators for semiconductors.

Note that turbojets of a thrust exceeding 25 knots, HS 841112, has an asterisk identifying that the commodity falls into more than one industry. That is because at the 6-digit HS level, it is unclear whether the commodity reflects aircraft or non-aircraft turbojets. However, Census Bureau 10-digit data at the national level shows that only 0.79% of all turbojets of a thrust exceeding 25 knots are of the non-aircraft variety. Further, the US ships only \$31 million in non-aircraft turbojets over 25 knots, while MA exports \$372 million of its turbojets. Therefore it is likely that the vast majority of Massachusetts' turbojets do in fact belong in the transportation sector. Likewise, only 1.4% of all turbojet and turbopropeller parts, HS 841191, are non-aircraft parts, so that commodity also belongs primarily in transportation.

Table 2.2 depicts the top commodity gains within the top 5 export gains by industry and the top commodity losses within the top 5 export losses by industry. This table explains, for example, that the state's two leading electronics exports, electrical apparatus for line telephony and metal oxide semiconductors, along with diodes (except photosensitive or light emitting), had the largest export increases in the electronics industry. The increase in Massachusetts primary metals exports was due in large measure to increases in non-monetary unwrought gold, unwrought tantalum, and flat rolled stainless steel, under 600 mm wide, cold rolled. Losses in transportation industry exports were led by declines in turbojet parts, parts of airplanes and helicopters nesoi, and military weapons. (Nesoi means "not elsewhere specified or included".) Losses in the special classification industry were led by declines in other recorded media nesoi for reproducing sound or image, laser discs for reproducing other

than sound/image, and recorded media for reproducing sound or image, all of which are better described as software and information in electronic format.

Digital computers entered as systems, HS 847149, the second leading component in machinery and computers industry gains, falls into more than one industry. However, only the power supplies associated with the systems do not belong in machinery and computers. Since those power supplies account for only 5.4% of all computer systems exports, the computer systems actually do belong primarily in machinery and computers.

Table 3 reports Massachusetts's top 20 commodities overall in 2000 and top 10 gains and losses by commodity. Not surprisingly, parts of electrical apparatus for line telephony is Massachusetts's leading and largest growth commodity by far, up \$700 million (90%) to \$1.5 billion in shipments in 2000. Massachusetts surpassed California to become the largest state exporter of parts of electrical apparatus for line telephony in 2000. The state's second leading commodity, computer parts and accessories, had the largest export decrease, falling from \$1.2 billion in 1990 to \$893 million (-23%) in 2000. Massachusetts had tremendous growth in its next three largest commodities exported, including metal oxide semiconductors (71%), instruments to check semiconductor wafers (212%), and particle accelerators with ion implanters for semiconductors (179%). Metal oxide semiconductors were also the leading and largest growth commodity exported nationwide. Among Massachusetts 20 leading commodities exported, those of greatest specialization include hormones and derivatives nesoi (not elsewhere specified or included) and steroids nesoi (84% of US total exports), particle accelerators for semiconductors (83%), instruments for checking electrical quantities nesoi (36%), parts of electrical machines nesoi (31%), instruments for checking semiconductors (26%), medical needles and catheters (22%), and parts of electrical apparatus for line telephony (22%).

Table 2.1
Massachusetts Export Industries by Leading Commodity Components
Top 10 Industries by \$Value of Shipments 2000

SIC HS 6	TOP 10 INDUSTRIES	1999	2000	INCR 99-00	%INCR	% OF US
ELECTRONIC,ELECTRIC EQUIP,EXC COMPUTER						
36 851790	PT ELECT APPR F LINE TELEPHONY OR TELEGRAPHY ETC.	774,355,899	1,474,993,399	700,637,500	90.48	21.95
36 854213	METAL OXIDE SEMICONDUCTORS(MOS),MONO DIGITAL INTEG	449,139,374	766,977,317	317,837,943	70.77	2.10
36 854230	ELECTRONIC MONOLITHIC INTEGRATED CIRCUIT,N.E.S.O.I	379,037,712	458,241,636	79,203,924	20.90	5.05
INDUSTRIAL MACHINERY,COMPUTER EQUIPMENT						
35 847330	PARTS & ACCESSORIES FOR ADP MACHINES & UNITS	1,153,267,756	892,919,023	-260,348,733	-22.57	3.75
35 854311	PARTICLE ACCELERATORS,ION IMPLANTERS FOR SMCNDCTRS	173,124,681	483,047,765	309,923,084	179.02	82.71
35 847180	AUTOMATIC DATA PROCESSING UNITS, N.E.S.O.I.	442,707,805	384,618,273	-58,089,532	-13.12	4.44
INSTRUMENTS AND RELATED PRODUCTS						
38 903082	INST TO CHECK SEMICONDUCT WAFERS & SUCH THAT RECORD	160,108,031	499,581,304	339,473,273	212.03	26.39
38 903089	INST,MEASURING/CHECKING ELECTRICAL QUANTITIE,NESOI	361,536,402	445,459,833	83,923,431	23.21	35.63
38 901839	MED NEEDLES. NESOI, CATHERERS ETC AND PARTS ETC	363,993,619	407,957,128	43,963,509	12.08	22.15
CHEMICALS AND ALLIED PRODUCTS						
28 300490	MEDICAMENTS NESOI, MEASURED DOSES, RETAIL PK NESOI	214,945,984	220,671,615	5,725,631	2.66	4.55
28 293799	HORMONES AND DERIV NESOI, STEROIDS ETC NESOI	120,537,542	183,158,980	62,621,438	51.95	83.86
28 382200	COMPOSITE DIAGNOSTIC/LAB REAGENTS, EXC PHARMACEUT	74,420,069	131,713,153	57,293,084	76.99	5.32
FABRICATED METAL PRODUCTS						
34 821210	RAZORS	205,092,730	149,977,441	-55,115,289	-26.87	87.44
34 930690	BOMB MINES OT AMMNITION PROJECTIONS ETC AND PARTS	26,051,430	131,277,020	105,225,590	403.91	9.90
34 821220	SAFETY RAZOR BLADES AND BLADE BLANKS IN STRIPS	58,549,396	59,696,762	1,147,366	1.96	59.14
TRANSPORTATION EQUIPMENT						
37 841112*	TURBOJETS OF A THRUST EXCEEDING 25 KN	372,289,110	372,015,803	-273,307	-0.07	9.36
37 841191*	TURBOJET AND TURBOPROLLER PARTS	133,174,815	92,607,668	-40,567,147	-30.46	1.37
37 841199*	GAS TURBINE PARTS NESOI	50,631,086	43,686,865	-6,944,221	-13.72	1.57
PRIMARY METAL INDUSTRIES						
33 710812	GOLD, NONMONETARY, UNWROUGHT NESOI	50,515,299	90,752,507	40,237,208	79.65	1.74
33 810310*	UNWROUGHT TANTALUM; TANTALUM WASTE, SCRAP & POWDER	35,744,928	55,329,044	19,584,116	54.79	55.72
33 854459	ELEC COND OV 80V NOV 1000V NOT FITTED W CONNECTOR	23,194,108	30,778,586	7,584,478	32.70	5.28
RUBBER AND MISC. PLASTICS PRODUCTS						
30 392690*	ARTICLES OF PLASTICS, NESOI	103,529,933	125,001,884	21,471,951	20.74	3.10
30 392069	PLATES ETC, NONCELL ETC, NO REIN, POLYESTERS NESOI	78,992,570	50,837,171	-28,155,399	-35.64	33.01
30 392091	PLATES ETC, NONCELL ETC, NO R, POLYVINYL BUTYRAL	41,416,309	27,282,432	-14,133,877	-34.13	14.28
PAPER AND ALLIED PRODUCTS						
26 481190	PAPER, PAPERBD, CELLULOSE WADD ETC, COAT ETC NESOI	52,882,755	64,777,431	11,894,676	22.49	22.12
26 480560	PAPER AND PAPERBOARD, NESOI, NOT OVER 150 G/M2, UC	34,248,106	45,473,447	11,225,341	32.78	26.62
26 391990	PLATES, SHEETS, FILM ETC, PLASTICS, SELF-ADH NESOI	31,861,267	42,899,389	11,038,122	34.64	6.80
SPECIAL CLASSIFICATION PROVISIONS, NSPF						
99 852431	LASER DISCS, FOR REPRODUCING OTHER THAN SOUND/IMAGE	121,754,803	103,610,510	-18,144,293	-14.90	7.90
99 852499*	RECORDED MEDIA FOR REPRODUCING SND OR IMAGE, NESOI	77,969,269	72,093,882	-5,875,387	-7.54	11.05
99 980110	VALUE OF REPAIR/ALTER ARTICLES PREVIOUS IMPORTED	46,311,568	71,486,661	25,175,093	54.36	3.04

*This 6-digit HS commodity is comprised of 10-digit commodities that map to more than one 2-digit SIC.

Table 2.2
Massachusetts Export Industries by Leading Commodity Components
Top 5 Industries by Growth and Loss of Shipments 1999-2000

SIC HS 6	TOP 5 GROWTH INDUSTRIES	1999	2000	INCR 99-00	%INCR	% OF US
ELECTRONIC,ELECTRIC EQUIP,EXC COMPUTER						
36 851790	PT ELECT APPR F LINE TELEPHONY OR TELEGRAPHY ETC.	774,355,899	1,474,993,399	700,637,500	90.48	21.95
36 854213	METAL OXIDE SEMICONDUCTORS(MOS),MONO DIGITAL INTEG	449,139,374	766,977,317	317,837,943	70.77	2.10
36 854110	DIODES EX PHOTSENSITIVE OR LIGHT-EMITTING DIODES	122,422,124	241,154,907	118,732,783	96.99	17.34
INSTRUMENTS AND RELATED PRODUCTS						
38 903082	INST TO CHECK SEMICONDUCT WAFERS & SUCH THAT RECORD	160,108,031	499,581,304	339,473,273	212.03	26.39
38 903290	PTS, AUTOM REGULATING/CONTROLLING INST & APPRTS	25,695,907	112,319,086	86,623,179	337.11	15.48
38 903089	INST,MEASURING/CHECKING ELECTRICAL QUANTITIES,NESOI	361,536,402	445,459,833	83,923,431	23.21	35.63
INDUSTRIAL MACHINERY,COMPUTER EQUIPMENT						
35 854311	PARTICLE ACCELERATORS,ION IMPLANTERS FOR SMCNDCTRS	173,124,681	483,047,765	309,923,084	179.02	82.71
35 847149*	DIGITAL ADP MAC & UNITS,ENTERED AS SYSTEMS, NESOI	172,087,193	240,615,132	68,527,939	39.82	5.14
35 842122	BEVERAGE FILTERING OR PURIFYING MACH & APPARATUS	7,716,845	65,560,211	57,843,366	749.57	76.00
CHEMICALS AND ALLIED PRODUCTS						
28 293799	HORMONES AND DERIV NESOI, STEROIDS ETC NESOI	120,537,542	183,158,980	62,621,438	51.95	83.86
28 382200	COMPOSITE DIAGNOSTIC/LAB REAGENTS, EXC PHARMACEUT	74,420,069	131,713,153	57,293,084	76.99	5.32
28 300220	VACCINES FOR HUMAN MEDICINE	859,933	28,751,312	27,891,379	3,243.44	11.72
PRIMARY METAL INDUSTRIES						
33 710812	GOLD, NONMONETARY, UNWROUGHT NESOI	50,515,299	90,752,507	40,237,208	79.65	1.74
33 810310*	UNWROUGHT TANTALUM; TANTALUM WASTE, SCRAP & POWDER	35,744,928	55,329,044	19,584,116	54.79	55.72
33 722020	FLAT-ROLLED STNLS STL UND 600MM WIDE, CLD-RLD	11,390,655	30,404,607	19,013,952	166.93	18.85
SIC HS 6	TOP 5 INDUSTRY LOSSES	1999	2000	INCR 99-00	%INCR	% OF US
TRANSPORTATION EQUIPMENT						
37 841191*	TURBOJET AND TURBOPROPELLER PARTS	133,174,815	92,607,668	-40,567,147	-30.46	1.37
37 880330	PARTS OF AIRPLANES OR HELICOPTERS, NESOI	59,781,562	43,435,693	-16,345,869	-27.34	0.34
37 930100*	MILITARY WEAPONS EX REVOLVERS PISTOLS LANCES ETC	16,401,248	834,777	-15,566,471	-94.91	0.25
PRINTING AND PUBLISHING						
27 490199	PRINTED BOOKS, BROCHURES, ETC., NESOI	90,425,122	53,504,290	-36,920,832	-40.83	2.74
27 482030	BINDERS,FOLDERS EXC BOOK COV FILE CVRS, PPR/PPRBRD	13,432,299	11,282,175	-2,150,124	-16.01	17.78
27 490700	UNUSED POSTAGE, CHECK FORMS, BANKNOTES, STOCK, ETC	7,723,488	6,353,364	-1,370,124	-17.74	2.29
APPAREL AND OTHER TEXTILE PRODUCTS						
23 611790	PARTS OF GARMENTS OR OF CLOTHING ACCESSORIES, KNIT	10,954,222	2,138,751	-8,815,471	-80.48	0.54
23 611020	SWEATERS, PULLOVERS ETC, KNIT ETC, COTTON	1,868,281	203,009	-1,665,272	-89.13	0.05
23 621210	BRASSIERES, KNIT OR CROCHETED OR NOT	5,354,200	3,908,178	-1,446,022	-27.01	0.93
SPECIAL CLASSIFICATION PROVISIONS, NSPF						
99 852491	OHTR RECORDED MEDIA,NESOI,FOR REPROD OTHR THAN S/I	67,151,843	45,825,627	-21,326,216	-31.76	5.93
99 852431	LASER DISCS,FOR REPRODUCING OTHER THAN SOUND/IMAGE	121,754,803	103,610,510	-18,144,293	-14.90	7.90
99 852499*	RECORDED MEDIA FOR REPRODUCING SND OR IMAGE, NESOI	77,969,269	72,093,882	-5,875,387	-7.54	11.05
LUMBER AND WOOD PRODUCTS						
24 441890	BUILDERS JOINERY AND CARPENTRY OF WOOD, NESOI	3,287,271	248,531	-3,038,740	-92.44	0.13
24 440791	OAK WOOD, SAWN, SLICED ETC, OVER 6 MM THICK	6,350,058	4,531,977	-1,818,081	-28.63	0.73
24 940600*	PREFABRICATED BUILDINGS	3,489,574	1,845,635	-1,643,939	-47.11	0.54

*This 6-digit HS commodity is comprised of 10-digit commodities that map to more than one 2-digit SIC.

Table 3
Massachusetts Exports by Commodity
Top 20 Commodities, Top 10 Gains and Losses 1999-2000

RANK	TOP 20 COMMODITIES	1999	2000	INCR 99-00	%INCR	%US
1	PT ELECT APPR F LINE TELEPHONY OR TELEGRAPHY ETC.	774,355,899	1,474,993,399	700,637,500	90.48	21.95
2	PARTS & ACCESSORIES FOR ADP MACHINES & UNITS	1,153,267,756	892,919,023	-260,348,733	-22.57	3.75
3	METAL OXIDE SEMICONDUCTORS(MOS),MONO DIGITAL INTEG	449,139,374	766,977,317	317,837,943	70.77	2.10
4	INST TO CHECK SEMICONDUCT WAFERS &SUCH THAT RECORD	160,108,031	499,581,304	339,473,273	212.03	26.39
5	PARTICLE ACCELERATORS,ION IMPLANTERS FOR SMCNDCTRS	173,124,681	483,047,765	309,923,084	179.02	82.71
6	ELECTRONIC MONOLITHIC INTEGRATED CIRCUIT,N.E.S.O.I	379,037,712	458,241,636	79,203,924	20.90	5.05
7	INST,MEASURING/CHECKING ELECTRICAL QUANTITIE,NESOI	361,536,402	445,459,833	83,923,431	23.21	35.63
8	MED NEEDLES. NESOI, CATHERERS ETC AND PARTS ETC	363,993,619	407,957,128	43,963,509	12.08	22.15
9	AUTOMATIC DATA PROCESSING UNITS, N.E.S.O.I.	442,707,805	384,618,273	-58,089,532	-13.12	4.44
10	TURBOJETS OF A THRUST EXCEEDING 25 KN	372,289,110	372,015,803	-273,307	-0.07	9.36
11	MONOLITHIC INTEGRATED CIRCUITS, DIGITAL, NESOI	186,373,190	289,379,820	103,006,630	55.27	13.63
12	INSTR & APPL F MEDICAL SURGICAL DENTAL VET, NESOI	236,211,805	246,255,910	10,044,105	4.25	7.29
13	DIODES EX PHOTSENSITIVE OR LIGHT-EMITTING DIODES	122,422,124	241,154,907	118,732,783	96.99	17.34
14	DIGITAL ADP MAC & UNITS,ENTERED AS SYSTEMS, NESOI	172,087,193	240,615,132	68,527,939	39.82	5.14
15	TELEPHONIC OR TELEGRAPHIC SWITCHING APPARATUS	302,335,171	229,904,943	-72,430,228	-23.96	16.86
16	MEDICAMENTS NESOI, MEASURED DOSES, RETAIL PK NESOI	214,945,984	220,671,615	5,725,631	2.66	4.55
17	PTS OF INST F MEAS ELECT QUAT ALPHA BETA INZNG RDT	148,065,015	205,094,832	57,029,817	38.52	14.11
18	PT ELEC MACH & APPR W INDIVIDUAL FUNCTIONS, NESOI	78,292,086	192,814,559	114,522,473	146.28	30.89
19	TELECOMM APPRTUS,CARRIER-CUR & DIGITAL SYSTM,NESOI	234,371,493	189,338,001	-45,033,492	-19.21	5.02
20	HORMONES AND DERIV NESOI, STEROIDS ETC NESOI	120,537,542	183,158,980	62,621,438	51.95	83.86
RANK	TOP 10 COMMODITY GAINS	1999	2000	INCR 99-00	%INCR	%US
1	PT ELECT APPR F LINE TELEPHONY OR TELEGRAPHY ETC.	774,355,899	1,474,993,399	700,637,500	90.48	21.95
2	INST TO CHECK SEMICONDUCT WAFERS &SUCH THAT RECORD	160,108,031	499,581,304	339,473,273	212.03	26.39
3	METAL OXIDE SEMICONDUCTORS(MOS),MONO DIGITAL INTEG	449,139,374	766,977,317	317,837,943	70.77	2.10
4	PARTICLE ACCELERATORS,ION IMPLANTERS FOR SMCNDCTRS	173,124,681	483,047,765	309,923,084	179.02	82.71
5	DIODES EX PHOTSENSITIVE OR LIGHT-EMITTING DIODES	122,422,124	241,154,907	118,732,783	96.99	17.34
6	PT ELEC MACH & APPR W INDIVIDUAL FUNCTIONS, NESOI	78,292,086	192,814,559	114,522,473	146.28	30.89
7	BOMB MINES OT AMMNITION PROJCTIONS ETC AND PARTS	26,051,430	131,277,020	105,225,590	403.91	9.90
8	MONOLITHIC INTEGRATED CIRCUITS, DIGITAL, NESOI	186,373,190	289,379,820	103,006,630	55.27	13.63
9	TANTALUM ELECTROLYTIC FIXED CAPACITORS	30,723,317	121,486,557	90,763,240	295.42	17.76
10	PTS, AUTOM REGULATING/CONTROLLING INST & APPRTS	25,695,907	112,319,086	86,623,179	337.11	15.48
	TOP 10 COMMODITY LOSSES	1999	2000	INCR 99-00	%INCR	%US
1	PARTS & ACCESSORIES FOR ADP MACHINES & UNITS	1,153,267,756	892,919,023	-260,348,733	-22.57	3.75
2	INST & APPRTS, MEASURE/CHECKING FLOW/LEVEL OF LIQ	127,908,124	18,555,198	-109,352,926	-85.49	6.14
3	ELECT APPR F PRCT TO ELECT CIRCT NOV 1000 V NESOI	127,736,052	21,670,071	-106,065,981	-83.04	1.05
4	HORMONES ETC. (NO ANTIBIOTICS CONTAINED) DOSAGE FM	135,979,617	38,441,686	-97,537,931	-71.73	18.95
5	TELEPHONIC OR TELEGRAPHIC SWITCHING APPARATUS	302,335,171	229,904,943	-72,430,228	-23.96	16.86
6	ULTRASONIC SCANNING APPARATUS	133,650,693	69,681,783	-63,968,910	-47.86	13.47
7	AUTOMATIC DATA PROCESSING UNITS, N.E.S.O.I.	442,707,805	384,618,273	-58,089,532	-13.12	4.44
8	RAZORS	205,092,730	149,977,441	-55,115,289	-26.87	87.44
9	PARTS AND ACCESSORIES FOR STILL PHOTO CAMERAS	103,186,580	55,728,791	-47,457,789	-45.99	42.41
10	TELECOMM APPRTUS,CARRIER-CUR & DIGITAL SYSTM,NESOI	234,371,493	189,338,001	-45,033,492	-19.21	5.02

Massachusetts Top 5 Export Industries

- **Electronic and Electric Equipment Excluding Computers**
- **Industrial machinery and Computer Equipment**
- **Instruments and Related Products**
- **Chemicals and Allied Products**
- **Fabricated Metal Products**

Overview

The following tables and graphs in this section show additional details about Massachusetts' export performance in each of its top five industries. There are two charts and two tables for each industry. The stacked bar chart shows changes in the relative shares of the top destinations for each industry from 1990-2000, as well as total industry performance over the decade since the stacked segments sum to the state export total. The line chart compares MA and US export growth to the world in the industries from 1990-2000, as well as MA growth to each of its top three countries of destination. The first table shows top 20 countries and top 10 growth and loss destinations for the industries. The second table shows top 20 commodities comprising the industry and top 10 growth and loss commodities. Highlights of the detailed tables and charts are presented below.

Electronic and Electric Equipment Excluding Computers

Massachusetts electronic and electric equipment exports increased over \$2 billion (45%), to \$6.5 billion in 2000. Massachusetts electronics export growth lagged behind US growth throughout the 1990s, but caught up with the national pace by the year 2000. Canada is the leading destination for Massachusetts electronics exports, followed closely by Japan, Germany, United Kingdom, and Netherlands. Massachusetts ships 40% of its electronics products to European markets, 40% to Asian markets, and 14% to Canada.

Telecommunications equipment, electronic integrated circuits, and diodes are Massachusetts' leading electronics exports. Domestic competition in the integrated circuits market is fierce. Nationwide, Massachusetts and New York sustained some of the largest increases in integrated circuits exports, while Maine and Vermont suffered some of the greatest losses. Massachusetts' leading and largest growth commodities in 2000 were parts for electrical apparatus for line telephony and metal oxide semiconductors. Massachusetts also had very high specialization and growth in diodes except photosensitive or light-emitting, tantalum electrolytic fixed capacitors, multiple loudspeakers mounted in the same enclosure, and parts of electric machinery nesoi. Digital computer systems nesoi and static converters; computer power supplies were also among the leading growth commodities. In the medical sector, electro-diagnostic apparatus nesoi was the eleventh ranked commodity exported. The state's largest losses occurred in electric apparatus for protecting electric circuits not over 1000 volts nesoi, telephonic or telegraphic switching apparatus, and telecomm apparatus for carrier-current and digital systems nesoi.

Industrial Machinery and Computer Equipment

After two years of decline, Massachusetts' exports of industrial machinery and computer equipment increased 15.6% to \$4.8 billion in the year 2000. Japan surpassed Canada as the leading destination. The state's next largest markets were United Kingdom, Germany, and

France. Massachusetts had very strong growth in many of its major markets. Exports to Korea and Malaysia more than doubled. Korea, Taiwan, France, and Japan had the largest increases in imports from Massachusetts in 2000, while Netherlands, Australia, Ireland, and Mexico sustained the largest decreases. Except in Canada in the early 1990s, Massachusetts' machinery and computers export growth lagged behind national growth throughout the past decade. MA shipments to Canada peaked in 1995, declined for four consecutive years, and finally achieved 0.92% growth in 2000.

In the year 2000 computer parts and accessories, computers, particle accelerators for semiconductors, and machines with individual functions nesoi and parts were Massachusetts' primary industrial machinery and computer exports. The state also had high growth and specialization in filtering and purifying machinery, industrial robots for multiple purposes, printing machinery, machines for making print blocks and plates, and industrial laboratory furnaces. The largest increases occurred in particle accelerators for semiconductors, digital computer systems, beverage filtering or purifying machines, and laptop computers. The largest losses occurred in computer parts and accessories, computers nesoi, and turbojet parts.

Instruments and Related Products

Massachusetts' exports of instruments and related products surged 23% in 2000 to reach \$4.1 billion in total shipments. Instruments exports expanded at a steady and rapid pace after 1994, slowing only slightly in 1998. Growth in exports to Taiwan was particularly strong. Over the past decade Massachusetts growth lagged behind national growth, but by 2000 had nearly caught up with the US pace. Japan, Netherlands, Taiwan, United Kingdom, and Germany were the leading destinations in 2000. Taiwan surpassed United Kingdom, Germany, and Canada to become MA's third largest market in 2000. Canada dropped from fifth to sixth largest destination in 2000. Massachusetts markets for its high-tech instruments were very evenly divided in 2000 between European and Asian markets, with a smaller Canadian component. However, Brazil and Mexico ranked in the top 20 markets, as did Australia. MA's largest export gains in 2000, by dollar value and percent increase, occurred in Taiwan, Korea, and Philippines, while Egypt, Belgium, and Italy had the largest decreases. Of the top 20 destinations, only Italy had decreasing imports from MA in 2000.

Massachusetts' instruments exports were led in the year 2000 by instruments for measuring electrical quantities and ionizing radiations (HS 9030) such as instruments to check semiconductors, other instruments nesoi and their parts, and instruments for telecommunications. Medical instruments such as needles, catheters, surgical instruments, electro-diagnostic apparatus, and artificial joints comprised the second largest type of instruments exports. Instruments for physical or chemical analysis (HS 9027), including spectrometers, spectrophotometers, and chromatographs, were the third largest component of Massachusetts' instruments exports. MA also has great specialization in photographic instruments and products, such as parts and accessories for still photo cameras, photo film with no sprocket holes, etc., and chemical sensitizing emulsions for photographic uses. The largest export increases were in instruments to check semiconductors and parts of controlling instruments, while the largest decreases were in instruments for checking the flow level of liquid and ultrasonic scanning apparatus.

Chemicals and Allied Products

Massachusetts' exports of chemicals and allied products expanded 15% to \$1.5 billion in 2000. Massachusetts' chemicals export increases were strong and steady from 1993-2000. MA growth exceeded US growth from 1996-2000, especially in France, United Kingdom, and Mexico. Over 50% of Massachusetts chemicals exports are destined for European markets, while 18% go to Asia, and another 14% each to Canada and Latin America. In the year 2000 the leading destinations were France, Canada, United Kingdom, Mexico, and Germany. France, Germany, and Japan had the largest increases in imports from MA, while Netherlands, United Kingdom, and Switzerland had the largest losses.

Medicine in measured doses for retail sale, hormones and derivatives and steroids nesoi, composite diagnostic reagents, and antiserra and blood fractions and immunization products were the leading Massachusetts chemicals exports in 2000. Massachusetts has high specialization in many chemical products including hormones, cyanides, shaving preparations, and radioactive elements and isotopes. Several plastics in primary forms are among MA's top 20 chemicals exports, such as polycarbonates, silicones, acrylic polymers nesoi, polyurethanes, and vinyl polymers nesoi. Hormones and derivatives nesoi, composite diagnostic reagents, and vaccines for human medicine had the largest gains in 2000, while hormones in dosage form, mastics; painter's fillings, and personal deodorants had the largest losses.

Fabricated Metals

Massachusetts fabricated metals exports sustained a second consecutive year of 5% growth and reached \$738 million in total shipments in 2000. The industry underwent two expansions and contractions during the 1990s, peaking in 1992 at \$727 million and 1997 at \$824 million, and is currently in the midst of another modest growth period. MA growth exceeded US growth in fabricated metals throughout most of the 1990s, falling below the national level after 1997. Shipments to UK expanded rapidly in 1998 and 1999 because of increased razor shipments. Canada, United Kingdom, Japan, Mexico, and Germany have long been the primary destinations for Massachusetts' primary metals, although shipments to Germany have fallen considerably since 1996. Other leading markets change from year to year because of the types of products shipped. In 2000 Egypt became the second largest destination because of \$131 million in shipments of bombs, mines, and other ammunition. Other large gains occurred in Japan, Brazil, and India, while the biggest losses occurred in Saudi Arabia, Malaysia, and United Kingdom.

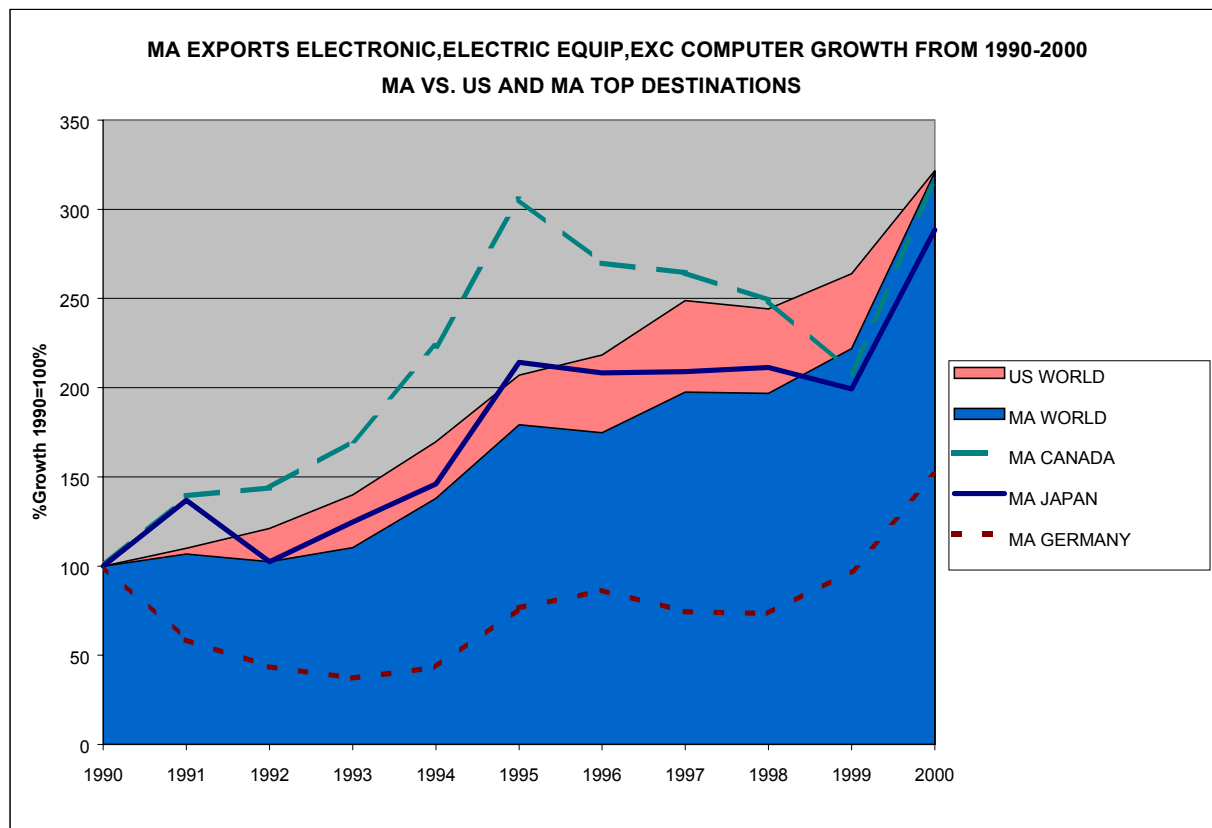
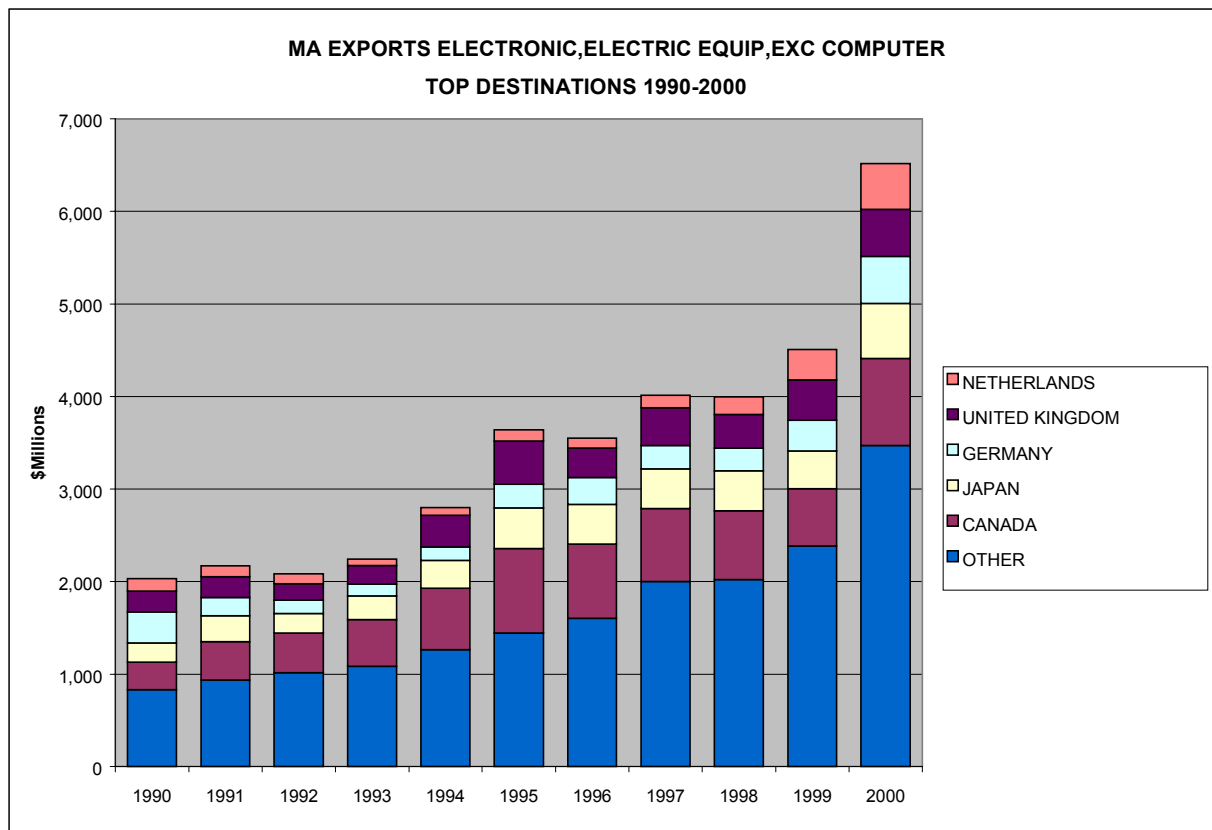
Razors and bombs were Massachusetts leading fabricated metals exports in the year 2000, followed by safety razor blade, taps and cocks for pipes and vats with thermostatic control nesoi, and bandsaw blades. The very large increase in bomb and ammunition shipments (primarily to Egypt) was more than enough to offset a substantial decline in exports of razors and military weapons (primarily to Saudi Arabia). The state's greatest commodities of specialization included razors and safety razor blades, bandsaw blades, and revolvers and pistols. There was large growth in many commodities besides bombs, including bandsaw blades, parts for auxiliary plants for boilers, coin nesoi, and valves for oleohydraulic or pneumatic transmissions to name a few.

**Massachusetts Exports SIC 36: Electronic,Electric Equip,Exc Computer
Leading Commodities by \$Value, Growth, and Loss of Shipments 1999-2000**

HS 6	TOP 20 COMMODITIES	1999	2000	\$Incr 99-00	%99-00	%US
1	851790 PT ELECT APPR F LINE TELEPHONY OR TELEGRAPHY ETC.	774,355,899	1,474,993,399	700,637,500	90.48	21.95
2	854213 METAL OXIDE SEMICONDUCTORS(MOS),MONO DIGITAL INTEG	449,139,374	766,977,317	317,837,943	70.77	2.10
3	854230 ELECTRONIC MONOLITHIC INTEGRATED CIRCUIT,N.E.S.O.I	379,037,712	458,241,636	79,203,924	20.90	5.05
4	854219 MONOLITHIC INTEGRATED CIRCUITS, DIGITAL, NESOI	186,373,190	289,379,820	103,006,630	55.27	13.63
5	854110 DIODES EX PHOTSENSITIVE OR LIGHT-EMITTING DIODES	122,422,124	241,154,907	118,732,783	96.99	17.34
6	847149* DIGITAL ADP MAC & UNITS,ENTERED AS SYSTEMS, NESOI	172,087,193	240,615,132	68,527,939	39.82	5.14
7	851730 TELEPHONIC OR TELEGRAPHIC SWITCHING APPARATUS	302,335,171	229,904,943	-72,430,228	-23.96	16.86
8	854390 PT ELEC MACH & APPR W INDIVIDUAL FUNCTIONS, NESOI	78,292,086	192,814,559	114,522,473	146.28	30.89
9	851750 TELECOMM APPRTUS,CARRIER-CUR & DIGITAL SYSTM,NESOI	234,371,493	189,338,001	-45,033,492	-19.21	5.02
10	850440 STATIC CONVERTERS; ADP POWER SUPPLIES	109,672,049	176,546,242	66,874,193	60.98	8.57
11	901819* ELECTRO-DIAGNOSTIC APPARATUS NESOI, AND PARTS ETC.	165,856,497	169,679,729	3,823,232	2.31	9.45
12	847989* MACH & MECHANICAL APPL W INDIVIDUAL FUNCTION NESOI	92,884,487	147,595,165	54,710,678	58.90	1.72
13	853221 TANTALUM ELECTROLYTIC FIXED CAPACITORS	30,723,317	121,486,557	90,763,240	295.42	17.76
14	854290 ELECTRONIC INTEGRATED CIRCUITS AND MCRSSMBLS PARTS	132,437,100	119,473,492	-12,963,608	-9.79	5.92
15	852990* PTS,EX ANTENNA,FOR TRNSMSSN,RDR,RADIO,TV,ETC NESOI	62,718,568	112,632,264	49,913,696	79.58	2.66
16	853400 PRINTED CIRCUITS	65,295,163	100,450,045	35,154,882	53.84	3.27
17	851780 ELECTRIC TELEPHONIC & TELEGRAPHIC APPARATUS, NESOI	54,740,210	91,153,804	36,413,594	66.52	20.99
18	853890 PT F ELECT APPR F ELECT CIRCT; F ELCT CONTRL NESOI	85,308,137	88,770,218	3,462,081	4.06	4.61
19	851822 MULTIPLE LOUDSPEAKERS, MOUNTED IN SAME ENCLOSURE	25,495,564	77,420,041	51,924,477	203.66	37.36
20	853650 ELECT SWITCHES F VOLTAGE NOT OVER 1000 V, NESOI	57,742,649	72,955,582	15,212,933	26.35	5.47
HS 6	TOP 10 GROWTH COMMODITIES	1999	2000	\$Incr 99-00	%99-00	%US
1	851790 PT ELECT APPR F LINE TELEPHONY OR TELEGRAPHY ETC.	774,355,899	1,474,993,399	700,637,500	90.48	21.95
2	854213 METAL OXIDE SEMICONDUCTORS(MOS),MONO DIGITAL INTEG	449,139,374	766,977,317	317,837,943	70.77	2.10
3	854110 DIODES EX PHOTSENSITIVE OR LIGHT-EMITTING DIODES	122,422,124	241,154,907	118,732,783	96.99	17.34
4	854390 PT ELEC MACH & APPR W INDIVIDUAL FUNCTIONS, NESOI	78,292,086	192,814,559	114,522,473	146.28	30.89
5	854219 MONOLITHIC INTEGRATED CIRCUITS, DIGITAL, NESOI	186,373,190	289,379,820	103,006,630	55.27	13.63
6	853221 TANTALUM ELECTROLYTIC FIXED CAPACITORS	30,723,317	121,486,557	90,763,240	295.42	17.76
7	854230 ELECTRONIC MONOLITHIC INTEGRATED CIRCUIT,N.E.S.O.I	379,037,712	458,241,636	79,203,924	20.90	5.05
8	847149* DIGITAL ADP MAC & UNITS,ENTERED AS SYSTEMS, NESOI	172,087,193	240,615,132	68,527,939	39.82	5.14
9	850440 STATIC CONVERTERS; ADP POWER SUPPLIES	109,672,049	176,546,242	66,874,193	60.98	8.57
10	854150 SEMICNDCTR DVCE EX PHOTSENSITIVE/PHOTOVOLTAIC CL	9,206,219	63,942,883	54,736,664	594.56	10.32
HS 6	TOP 10 LOSSES BY COMMODITY	1999	2000	\$Incr 99-00	%99-00	%US
1	853690 ELECT APPR F PRCT TO ELECT CIRCT NOV 1000 V NESOI	127,736,052	21,670,071	-106,065,981	-83.04	1.05
2	851730 TELEPHONIC OR TELEGRAPHIC SWITCHING APPARATUS	302,335,171	229,904,943	-72,430,228	-23.96	16.86
3	851750 TELECOMM APPRTUS,CARRIER-CUR & DIGITAL SYSTM,NESOI	234,371,493	189,338,001	-45,033,492	-19.21	5.02
4	852313 MAGNETIC TAPE UNRECORDED WIDTH EXCEEDING 6.5 MM	33,585,022	14,251,345	-19,333,677	-57.57	4.35
5	854290 ELECTRONIC INTEGRATED CIRCUITS AND MCRSSMBLS PARTS	132,437,100	119,473,492	-12,963,608	-9.79	5.92
6	850490 PTS FOR ELECT TRANSFORMERS STATIC CONVERTERS INDCT	28,874,108	16,976,093	-11,898,015	-41.21	1.97
7	852790 RECEPTION APPR RADIO-TELEPHON/TELEGRAPH ETC NESOI	11,556,063	3,086,612	-8,469,451	-73.29	0.93
8	851719 VIDEOPHONES & OTHER TELEPHONE SETS, N.E.S.O.I.	37,592,530	29,949,779	-7,642,751	-20.33	9.24
9	854214 MONOLITHIC DIGITAL INTEG CIRCUITS,BIPOLAR TCHNOLGY	33,444,639	26,432,297	-7,012,342	-20.97	2.00
10	852499* RECORDED MEDIA FOR REPRODUCING SND OR IMAGE, NESOI	77,969,269	72,093,882	-5,875,387	-7.54	11.05

**Massachusetts Exports SIC 36: Electronic,Electric Equip,Exc Computer
Leading Destinations by \$Value, Growth, and Loss of Shipments 1999-2000**

TOP 20 DESTINATIONS		1999	2000	%98-99	%99-00	\$Incr 99-00	%US
TOTAL ALL COUNTRIES		4,506,524,243	6,517,664,884	12.76	44.63	2,011,140,641	4.55
1	CANADA	620,476,981	940,736,627	-16.33	51.62	320,259,646	3.87
2	JAPAN	409,036,568	592,008,101	-5.68	44.73	182,971,533	6.03
3	GERMANY	328,126,895	509,625,711	32.79	55.31	181,498,816	13.56
4	UNITED KINGDOM	439,692,358	507,634,452	21.09	15.45	67,942,094	8.19
5	NETHERLANDS	325,661,318	495,849,718	71.87	52.26	170,188,400	18.47
6	KOREA, REPUBLIC OF	220,585,443	363,111,846	79.11	64.61	142,526,403	4.33
7	IRELAND	176,985,853	362,228,318	92.45	104.67	185,242,465	20.79
8	CHINA (TAIWAN)	253,226,549	341,881,302	-4.40	35.01	88,654,753	5.02
9	CHINA (MAINLAND)	177,490,213	273,886,191	26.26	54.31	96,395,978	10.74
10	FRANCE	167,516,801	269,698,609	2.20	61.00	102,181,808	10.59
11	PHILIPPINES	179,292,177	260,289,442	-13.05	45.18	80,997,265	4.74
12	MALAYSIA	118,089,985	233,453,739	34.18	97.69	115,363,754	3.50
13	HONG KONG	110,643,112	199,039,356	7.89	79.89	88,396,244	4.34
14	MEXICO	149,130,449	188,863,059	64.46	26.64	39,732,610	0.67
15	SINGAPORE	143,215,559	185,725,010	14.20	29.68	42,509,451	3.17
16	ITALY	53,627,458	99,832,730	-27.13	86.16	46,205,272	5.86
17	BRAZIL	50,592,917	78,267,228	84.63	54.70	27,674,311	2.37
18	AUSTRALIA	44,283,987	70,062,507	2.40	58.21	25,778,520	5.59
19	SPAIN	87,907,054	66,697,267	117.56	-24.13	-21,209,787	10.76
20	ISRAEL	38,114,638	55,964,430	-18.15	46.83	17,849,792	3.51
TOP 10 GROWTH COUNTRIES		1999	2000	%98-99	%99-00	\$Incr 99-00	%US
1	CANADA	620,476,981	940,736,627	-16.33	51.62	320,259,646	3.87
2	IRELAND	176,985,853	362,228,318	92.45	104.67	185,242,465	20.79
3	JAPAN	409,036,568	592,008,101	-5.68	44.73	182,971,533	6.03
4	GERMANY	328,126,895	509,625,711	32.79	55.31	181,498,816	13.56
5	NETHERLANDS	325,661,318	495,849,718	71.87	52.26	170,188,400	18.47
6	KOREA, REPUBLIC OF	220,585,443	363,111,846	79.11	64.61	142,526,403	4.33
7	MALAYSIA	118,089,985	233,453,739	34.18	97.69	115,363,754	3.50
8	FRANCE	167,516,801	269,698,609	2.20	61.00	102,181,808	10.59
9	CHINA (MAINLAND)	177,490,213	273,886,191	26.26	54.31	96,395,978	10.74
10	CHINA (TAIWAN)	253,226,549	341,881,302	-4.40	35.01	88,654,753	5.02
TOP 10 LOSSES BY COUNTRY		1999	2000	%98-99	%99-00	\$Incr 99-00	%US
1	SAUDI ARABIA	55,030,568	7,370,218	186.17	-86.61	-47,660,350	2.06
2	SPAIN	87,907,054	66,697,267	117.56	-24.13	-21,209,787	10.76
3	BRUNEI	10,664,022	570,933	#####	-94.65	-10,093,089	0.66
4	BELGIUM	56,854,935	47,289,154	18.14	-16.82	-9,565,781	5.36
5	EGYPT	10,919,147	4,022,207	-15.81	-63.16	-6,896,940	2.49
6	TURKEY	11,143,937	5,490,858	78.77	-50.73	-5,653,079	3.05
7	GREECE	7,687,632	2,376,082	-52.01	-69.09	-5,311,550	2.62
8	CZECH REPUBLIC	7,539,990	2,311,743	196.86	-69.34	-5,228,247	2.18
9	REPUBLIC OF SOUTH AFRICA	11,670,086	6,890,787	-6.42	-40.95	-4,779,299	3.40
10	GUATEMALA	4,156,865	369,876	37.94	-91.10	-3,786,989	0.20

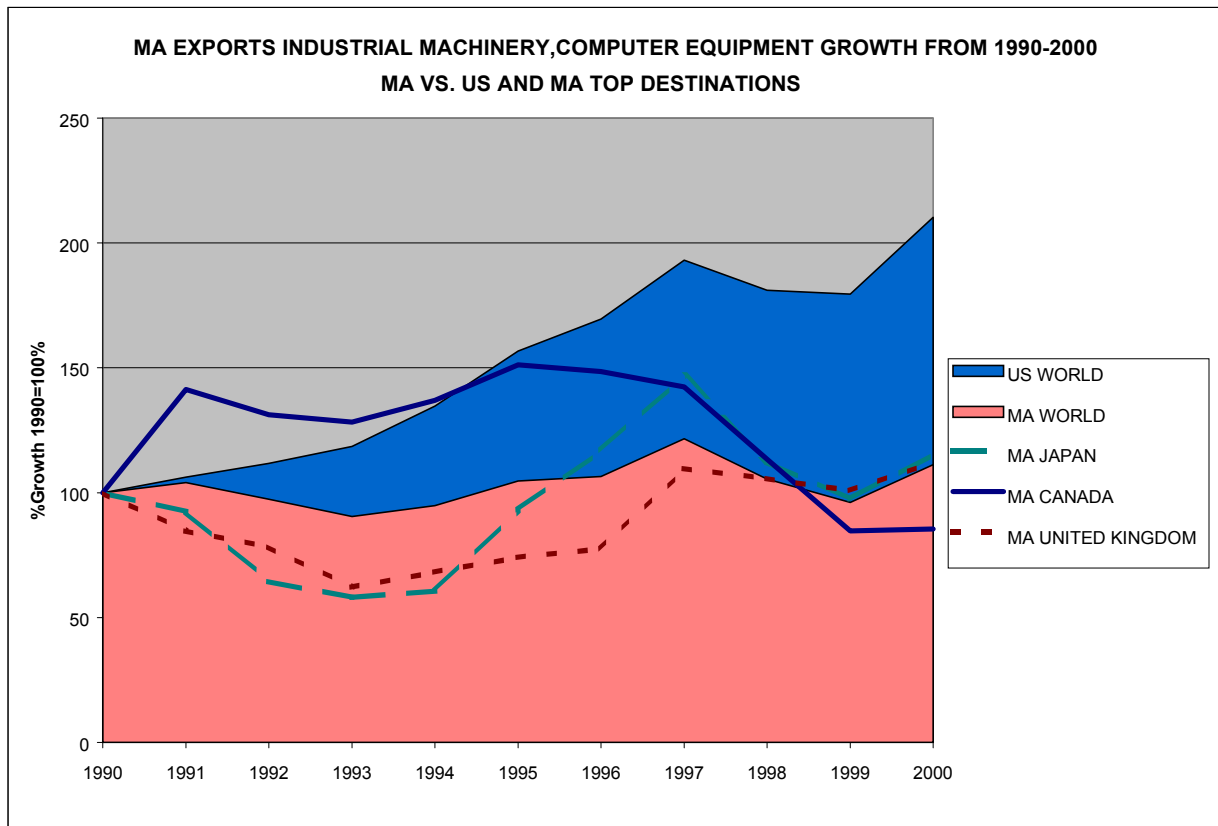
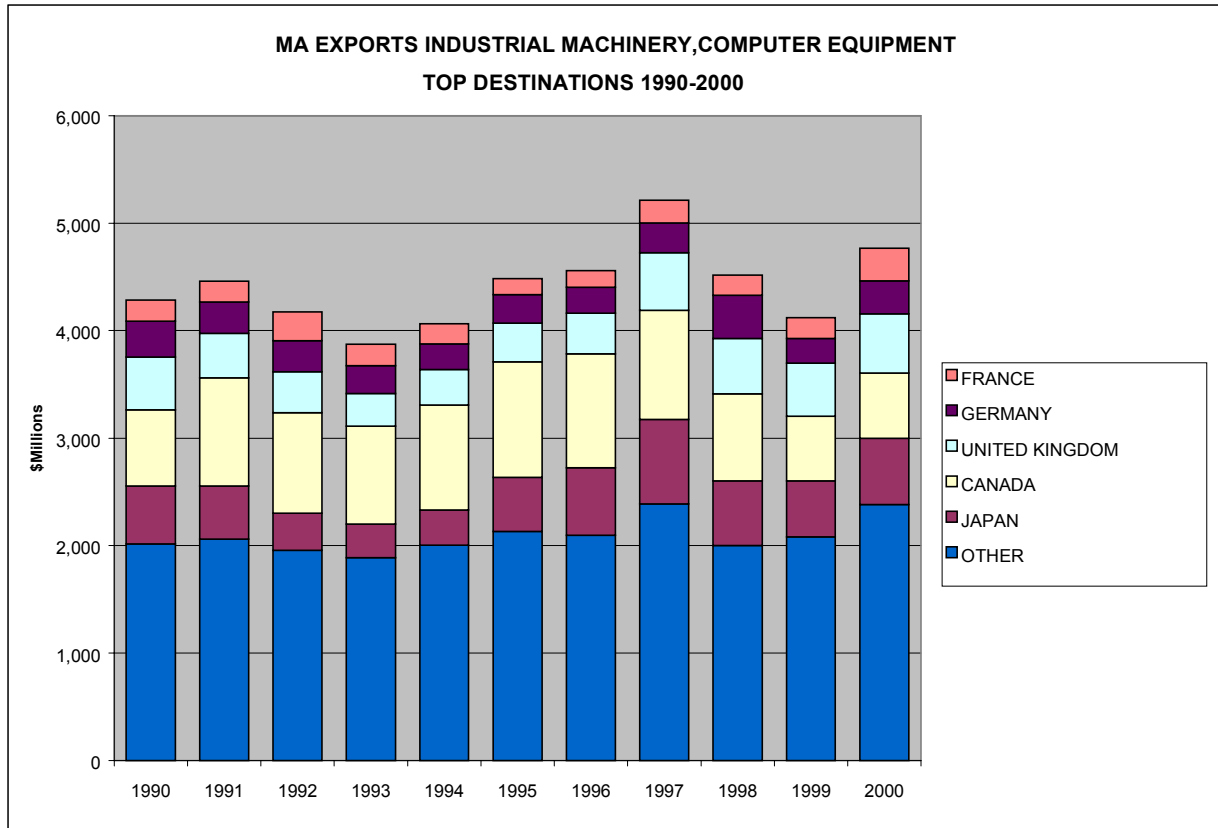


**Massachusetts Exports SIC 35: Industrial Machinery,Computer Equipment
Leading Commodities by \$Value, Growth, and Loss of Shipments 1999-2000**

HS 6	TOP 20 COMMODITIES	1999	2000	\$Incr 99-00	%99-00	%US
1	847330 PARTS & ACCESSORIES FOR ADP MACHINES & UNITS	1,153,267,756	892,919,023	-260,348,733	-22.57	3.75
2	854311 PARTICLE ACCELERATORS,ION IMPLANTERS FOR SMCNDCTRS	173,124,681	483,047,765	309,923,084	179.02	82.71
3	847180 AUTOMATIC DATA PROCESSING UNITS, N.E.S.O.I.	442,707,805	384,618,273	-58,089,532	-13.12	4.44
4	841112* TURBOJETS OF A THRUST EXCEEDING 25 KN	372,289,110	372,015,803	-273,307	-0.07	9.36
5	847149* DIGITAL ADP MAC & UNITS,ENTERED AS SYSTEMS, NESOI	172,087,193	240,615,132	68,527,939	39.82	5.14
6	847989* MACH & MECHANICAL APPL W INDIVIDUAL FUNCTION NESOI	92,884,487	147,595,165	54,710,678	58.90	1.72
7	847130 PORT DIGTL AUTOMATIC DATA PROCESS MACH NOT > 10 KG	82,629,196	137,944,415	55,315,219	66.94	8.99
8	847990 PTS OF MACH/MECHNCL APPL W INDVDUL FUNCTION NESOI	85,695,890	135,657,029	49,961,139	58.30	4.46
9	847141 DIGITAL ADP MACH,WITH CP UNIT,INPUT,OUTPUT, NESOI	86,641,979	117,733,457	31,091,478	35.89	9.33
10	847190 ADP MAC&UNTS THEREOF;MAG/OPT RDER,TRNSCRB,PROC DAT	74,498,871	115,511,948	41,013,077	55.05	6.74
11	842199 FILTER/PURIFY MACHINE & APPARATUS PARTS	46,480,486	97,247,255	50,766,769	109.22	10.97
12	841191* TURBOJET AND TURBOPROLLER PARTS	133,174,815	92,607,668	-40,567,147	-30.46	1.37
13	847170 AUTOMATIC DATA PROCESSING STORAGE UNITS, N.E.S.O.I	127,612,173	91,701,303	-35,910,870	-28.14	2.09
14	847150 DIGITAL PROCESSING UNITS, N.E.S.O.I.	87,212,786	90,573,812	3,361,026	3.85	2.01
15	844359 PRINTING MACHINERY, EXCEPT UNITS OF 8471, NESOI	52,761,786	75,869,846	23,108,060	43.80	30.04
16	847950 INDUSTRIAL ROBOTS FOR MULTIPLE USES	35,638,194	73,805,569	38,167,375	107.10	32.05
17	844230 MACH & EQUIP, NESOI, F MAKING PRINT BLOCKS, PLATES	32,371,778	66,531,040	34,159,262	105.52	36.83
18	842122 BEVERAGE FILTERING OR PURIFYING MACH & APPARATUS	7,716,845	65,560,211	57,843,366	749.57	76.00
19	851430 INDUSTRIAL, LABORATORY FURNACES, OVENS, NESOI	33,722,806	57,500,872	23,778,066	70.51	11.07
20	847160 ADP INPUT OR OUTPUT UNITS, STORAGE OR NOT, NESOI	64,972,821	55,286,520	-9,686,301	-14.91	1.53
HS 6	TOP 10 GROWTH COMMODITIES	1999	2000	\$Incr 99-00	%99-00	%US
1	854311 PARTICLE ACCELERATORS,ION IMPLANTERS FOR SMCNDCTRS	173,124,681	483,047,765	309,923,084	179.02	82.71
2	847149* DIGITAL ADP MAC & UNITS,ENTERED AS SYSTEMS, NESOI	172,087,193	240,615,132	68,527,939	39.82	5.14
3	842122 BEVERAGE FILTERING OR PURIFYING MACH & APPARATUS	7,716,845	65,560,211	57,843,366	749.57	76.00
4	847130 PORT DIGTL AUTOMATIC DATA PROCESS MACH NOT > 10 KG	82,629,196	137,944,415	55,315,219	66.94	8.99
5	847989* MACH & MECHANICAL APPL W INDIVIDUAL FUNCTION NESOI	92,884,487	147,595,165	54,710,678	58.90	1.72
6	842199 FILTER/PURIFY MACHINE & APPARATUS PARTS	46,480,486	97,247,255	50,766,769	109.22	10.97
7	847990 PTS OF MACH/MECHNCL APPL W INDVDUL FUNCTION NESOI	85,695,890	135,657,029	49,961,139	58.30	4.46
8	847190 ADP MAC&UNTS THEREOF;MAG/OPT RDER,TRNSCRB,PROC DAT	74,498,871	115,511,948	41,013,077	55.05	6.74
9	841350 RECIPROCATING POSITIVE DISPLACEMENT PUMPS, NESOI	15,522,577	54,928,470	39,405,893	253.86	16.61
10	847950 INDUSTRIAL ROBOTS FOR MULTIPLE USES	35,638,194	73,805,569	38,167,375	107.10	32.05
HS 6	TOP 10 LOSSES BY COMMODITY	1999	2000	\$Incr 99-00	%99-00	%US
1	847330 PARTS & ACCESSORIES FOR ADP MACHINES & UNITS	1,153,267,756	892,919,023	-260,348,733	-22.57	3.75
2	847180 AUTOMATIC DATA PROCESSING UNITS, N.E.S.O.I.	442,707,805	384,618,273	-58,089,532	-13.12	4.44
3	841191* TURBOJET AND TURBOPROLLER PARTS	133,174,815	92,607,668	-40,567,147	-30.46	1.37
4	847170 AUTOMATIC DATA PROCESSING STORAGE UNITS, N.E.S.O.I	127,612,173	91,701,303	-35,910,870	-28.14	2.09
5	842129 FILTER/PURIFY MACHINE & APPARATUS FOR LIQUID NESOI	56,154,625	22,598,967	-33,555,658	-59.76	7.82
6	844210 PHOTOTYPESETTING AND COMPOSING MACHINES	36,791,163	8,474,800	-28,316,363	-76.97	19.00
7	847090 POSTAGE-FRANKING & SIMILAR MACH WITH CALCLTNG DVCE	20,899,543	5,877,781	-15,021,762	-71.88	7.88
8	844351 INK-JET PRINTING MACHINERY, EXCEPT UNITS OF 8471	20,723,668	6,321,257	-14,402,411	-69.50	3.73
9	844240 PARTS OF MACH & EQUIP F MAKE PRINT BLOCKS, ETC	44,514,150	30,951,208	-13,562,942	-30.47	38.81
10	843143 PARTS FOR BORING OR SINKING MACHINERY, NESOI	12,984,466	1,322,675	-11,661,791	-89.81	0.04

**Massachusetts Exports SIC 35: Industrial Machinery,Computer Equipment
Leading Destinations by \$Value, Growth, and Loss of Shipments 1999-2000**

TOP 20 DESTINATIONS		1999	2000	%98-99	%99-00	\$Incr 99-00	%US
TOTAL ALL COUNTRIES		4,121,133,797	4,766,023,878	-8.74	15.65	644,890,081	3.35
1	JAPAN	522,086,014	619,061,223	-13.27	18.57	96,975,209	5.74
2	CANADA	603,079,932	608,638,721	-25.40	0.92	5,558,789	2.07
3	UNITED KINGDOM	491,978,025	548,053,631	-4.65	11.40	56,075,606	6.16
4	GERMANY	229,657,979	307,780,513	-42.64	34.02	78,122,534	4.64
5	FRANCE	194,663,329	303,441,488	3.36	55.88	108,778,159	7.36
6	CHINA (TAIWAN)	161,207,227	302,420,274	63.80	87.60	141,213,047	5.01
7	KOREA, REPUBLIC OF	129,778,133	293,098,462	47.69	125.85	163,320,329	5.03
8	SINGAPORE	196,908,623	204,080,742	33.33	3.64	7,172,119	4.00
9	IRELAND	205,668,298	172,504,470	16.74	-16.12	-33,163,828	7.21
10	MEXICO	152,964,002	129,645,073	31.15	-15.24	-23,318,929	0.91
11	NETHERLANDS	176,636,571	123,564,571	-1.95	-30.05	-53,072,000	1.94
12	BELGIUM	109,281,025	109,861,233	13.88	0.53	580,208	4.64
13	ITALY	70,858,320	100,418,819	-2.36	41.72	29,560,499	5.27
14	ISRAEL	96,438,212	89,909,301	64.27	-6.77	-6,528,911	7.89
15	CHINA (MAINLAND)	62,070,296	89,270,004	-29.84	43.82	27,199,708	2.63
16	MALAYSIA	28,366,887	77,125,693	-16.19	171.89	48,758,806	4.57
17	HONG KONG	82,622,782	74,115,875	-33.95	-10.30	-8,506,907	2.66
18	BRAZIL	57,252,237	66,553,157	-27.95	16.25	9,300,920	1.92
19	AUSTRALIA	104,340,002	58,506,001	-7.63	-43.93	-45,834,001	1.84
20	SWITZERLAND	37,372,680	40,069,399	-26.96	7.22	2,696,719	5.46
TOP 10 GROWTH COUNTRIES		1999	2000	%98-99	%99-00	\$Incr 99-00	%US
1	KOREA, REPUBLIC OF	129,778,133	293,098,462	47.69	125.85	163,320,329	5.03
2	CHINA (TAIWAN)	161,207,227	302,420,274	63.80	87.60	141,213,047	5.01
3	FRANCE	194,663,329	303,441,488	3.36	55.88	108,778,159	7.36
4	JAPAN	522,086,014	619,061,223	-13.27	18.57	96,975,209	5.74
5	GERMANY	229,657,979	307,780,513	-42.64	34.02	78,122,534	4.64
6	UNITED KINGDOM	491,978,025	548,053,631	-4.65	11.40	56,075,606	6.16
7	MALAYSIA	28,366,887	77,125,693	-16.19	171.89	48,758,806	4.57
8	ITALY	70,858,320	100,418,819	-2.36	41.72	29,560,499	5.27
9	CHINA (MAINLAND)	62,070,296	89,270,004	-29.84	43.82	27,199,708	2.63
10	PHILIPPINES	24,861,706	39,230,238	-29.50	57.79	14,368,532	5.65
TOP 10 LOSSES BY COUNTRY		1999	2000	%98-99	%99-00	\$Incr 99-00	%US
1	NETHERLANDS	176,636,571	123,564,571	-1.95	-30.05	-53,072,000	1.94
2	AUSTRALIA	104,340,002	58,506,001	-7.63	-43.93	-45,834,001	1.84
3	IRELAND	205,668,298	172,504,470	16.74	-16.12	-33,163,828	7.21
4	MEXICO	152,964,002	129,645,073	31.15	-15.24	-23,318,929	0.91
5	SAUDI ARABIA	18,308,662	3,912,423	63.63	-78.63	-14,396,239	0.48
6	REPUBLIC OF SOUTH AFRICA	20,061,240	9,669,631	-0.61	-51.80	-10,391,609	1.64
7	HONG KONG	82,622,782	74,115,875	-33.95	-10.30	-8,506,907	2.66
8	COLOMBIA	11,539,820	3,975,614	-38.14	-65.55	-7,564,206	0.45
9	ISRAEL	96,438,212	89,909,301	64.27	-6.77	-6,528,911	7.89
10	AUSTRIA	27,476,522	21,325,393	-1.53	-22.39	-6,151,129	6.56

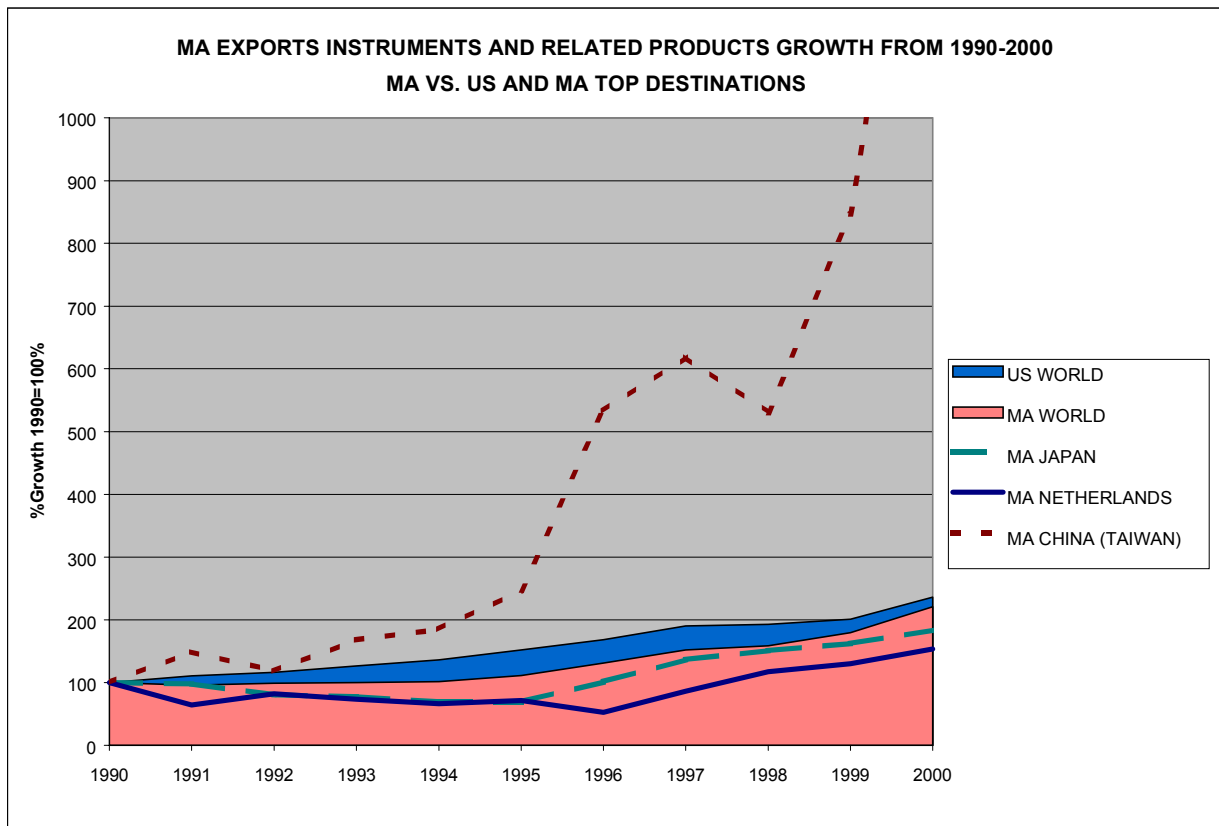
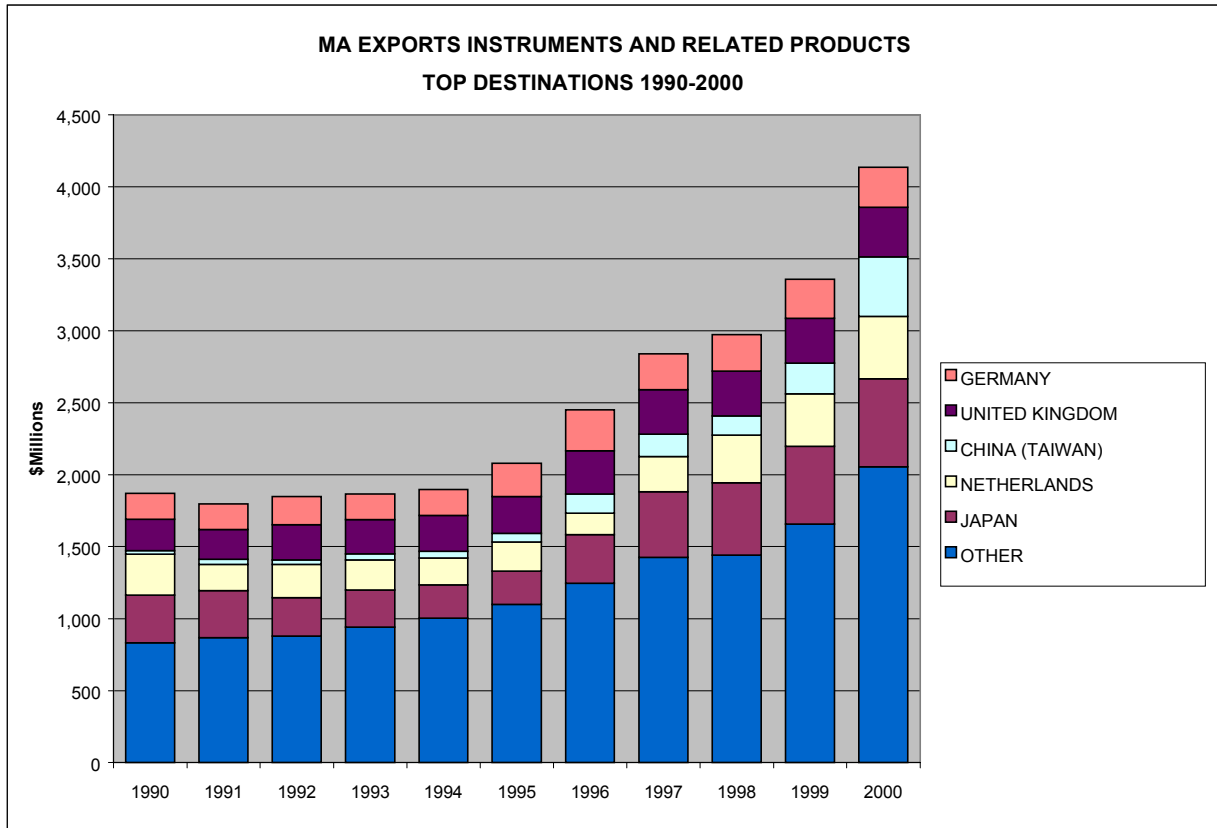


Massachusetts Exports SIC 38: Instruments And Related Products
Leading Commodities by \$Value, Growth, and Loss of Shipments 1999-2000

HS 6	TOP 20 COMMODITIES	1999	2000	\$incr 99-00	%99-00	%US
1	903082 INST TO CHECK SEMICONDUCT WAFERS & SUCH THAT RECORD	160,108,031	499,581,304	339,473,273	212.03	26.39
2	903089 INST, MEASURING/CHECKING ELECTRICAL QUANTITIES, NESOI	361,536,402	445,459,833	83,923,431	23.21	35.63
3	901839 MED NEEDLES. NESOI, CATHETERS ETC AND PARTS ETC	363,993,619	407,957,128	43,963,509	12.08	22.15
4	901890 INSTR & APPL F MEDICAL SURGICAL DENTAL VET, NESOI	236,211,805	246,255,910	10,044,105	4.25	7.29
5	903090 PTS OF INST F MEAS ELECT QUAT ALPHA BETA INZNG RDT	148,065,015	205,094,832	57,029,817	38.52	14.11
6	901819* ELECTRO-DIAGNOSTIC APPARATUS NESOI, AND PARTS ETC.	165,856,497	169,679,729	3,823,232	2.31	9.45
7	852990* PTS, EX ANTENNA, FOR TRNSMSSN, RDR, RADIO, TV, ETC NESOI	62,718,568	112,632,264	49,913,696	79.58	2.66
8	903290 PTS, AUTOM REGULATING/CONTROLLING INST & APPRTS	25,695,907	112,319,086	86,623,179	337.11	15.48
9	902790 PTS OF INST, PHYS/CHEM ANALYSIS ETC, NESOI	86,606,714	100,455,418	13,848,704	15.99	14.60
10	902780 PHY CHEM INS/APPR; MEAS VSCSTY & HEAT NESOI	74,728,659	89,989,493	15,260,834	20.42	9.07
11	370241 PHOT FILM NO SPROCKET HOLES, OV 610MM & OV 200MM CLR	38,404,277	76,686,979	38,282,702	99.68	26.09
12	901812 ULTRASONIC SCANNING APPARATUS	133,650,693	69,681,783	-63,968,910	-47.86	13.47
13	902730 SPCTMTR SPCTRPHMTR ETC USING OPTICAL RADIATIONS	56,606,924	62,539,537	5,932,613	10.48	21.67
14	902720 CHROMATOGRAPHS AND ELECTROPHORESIS INSTRUMENTS	57,391,859	56,977,611	-414,248	-0.72	11.00
15	903180 MEAS & CHECKNG INSTRUMENT, APPLIANCES & MACH NESOI	50,021,655	56,359,848	6,338,193	12.67	5.65
16	900691 PARTS AND ACCESSORIES FOR STILL PHOTO CAMERAS	103,186,580	55,728,791	-47,457,789	-45.99	42.41
17	902111 ARTIFICIAL JOINTS AND PARTS AND ACCESSORIES	65,199,525	55,052,513	-10,147,012	-15.56	11.71
18	854389* ELECTRICAL MACH & APPAR, HAVING INDIVIDUAL FUNC, NESOI	32,897,729	50,658,651	17,760,922	53.99	4.32
19	902119 ORTHOPDC/FRACTR APPL (EX ART JOINT/PT), PT & ACCESS	29,492,353	49,297,935	19,805,582	67.15	10.23
20	370710 CHEMICAL SENSITIZING EMULSIONS FOR PHOTO USES	38,859,537	49,228,310	10,368,773	26.68	57.38
HS 6	TOP 10 GROWTH COMMODITIES	1999	2000	\$incr 99-00	%99-00	%US
1	903082 INST TO CHECK SEMICONDUCT WAFERS & SUCH THAT RECORD	160,108,031	499,581,304	339,473,273	212.03	26.39
2	903290 PTS, AUTOM REGULATING/CONTROLLING INST & APPRTS	25,695,907	112,319,086	86,623,179	337.11	15.48
3	903089 INST, MEASURING/CHECKING ELECTRICAL QUANTITIES, NESOI	361,536,402	445,459,833	83,923,431	23.21	35.63
4	903090 PTS OF INST F MEAS ELECT QUAT ALPHA BETA INZNG RDT	148,065,015	205,094,832	57,029,817	38.52	14.11
5	852990* PTS, EX ANTENNA, FOR TRNSMSSN, RDR, RADIO, TV, ETC NESOI	62,718,568	112,632,264	49,913,696	79.58	2.66
6	901839 MED NEEDLES. NESOI, CATHETERS ETC AND PARTS ETC	363,993,619	407,957,128	43,963,509	12.08	22.15
7	903141 OPTICAL INST FOR INSPECTING SEMICONDUCTOR WAFERS	4,496,715	47,143,240	42,646,525	948.39	3.67
8	370241 PHOT FILM NO SPROCKET HOLES, OV 610MM & OV 200MM CLR	38,404,277	76,686,979	38,282,702	99.68	26.09
9	900220 FILTERS & PARTS & ACCESSORIES FOR INSTR & APPRATUS	4,700,021	37,596,845	32,896,824	699.93	21.95
10	903040 OTH INST, SPECIALLY DESIGNED FOR TELECOMMUNICATION	21,955,731	45,888,807	23,933,076	109.01	4.60
HS 6	TOP 10 LOSSES BY COMMODITY	1999	2000	\$incr 99-00	%99-00	%US
1	902610 INST & APPRTS, MEASURE/CHECKING FLOW/LEVEL OF LIQ	127,908,124	18,555,198	-109,352,926	-85.49	6.14
2	901812 ULTRASONIC SCANNING APPARATUS	133,650,693	69,681,783	-63,968,910	-47.86	13.47
3	900691 PARTS AND ACCESSORIES FOR STILL PHOTO CAMERAS	103,186,580	55,728,791	-47,457,789	-45.99	42.41
4	902219 APPARATUS BASE ON X-RAY FOR OTH USE, EX MEDICAL, ETC	36,179,015	20,759,323	-15,419,692	-42.62	8.62
5	902111 ARTIFICIAL JOINTS AND PARTS AND ACCESSORIES	65,199,525	55,052,513	-10,147,012	-15.56	11.71
6	901590 PARTS AND ACCESSORIES FOR SURVEYING ETC NESOI	17,992,480	9,355,894	-8,636,586	-48.00	3.89
7	900120 SHEETS AND PLATES OF POLARIZING MATERIAL	12,789,336	4,642,290	-8,147,046	-63.70	8.25
8	903300 PTS, NESOI FOR MACHINES, APPLN, INST/APPTS OF CHAP90	24,084,489	19,629,503	-4,454,986	-18.50	8.32
9	370130 PLATES & FILM NESOI WITH ANY SIDE OV 255MM, UNEXP	8,972,023	4,903,388	-4,068,635	-45.35	1.63
10	902810 GAS METERS	3,188,734	73,373	-3,115,361	-97.70	0.22

Massachusetts Exports SIC 38: Instruments And Related Products
Leading Destinations by \$Value, Growth, and Loss of Shipments 1999-2000

TOP 20 DESTINATIONS		1999	2000	%98-99	%99-00	\$Incr 99-00	%US
TOTAL ALL COUNTRIES		3,356,529,443	4,136,706,232	12.91	23.24	780,176,789	8.25
1	JAPAN	539,801,649	610,420,719	7.40	13.08	70,619,070	9.43
2	NETHERLANDS	366,781,437	434,312,822	10.71	18.41	67,531,385	18.49
3	CHINA (TAIWAN)	211,661,216	413,110,215	59.79	95.18	201,448,999	17.96
4	UNITED KINGDOM	311,688,193	344,581,889	0.01	10.55	32,893,696	9.01
5	GERMANY	269,985,353	278,628,105	6.59	3.20	8,642,752	7.77
6	CANADA	221,084,463	263,913,798	-3.98	19.37	42,829,335	3.68
7	SINGAPORE	188,979,237	240,663,162	66.85	27.35	51,683,925	16.17
8	KOREA, REPUBLIC OF	58,253,148	170,584,838	-16.76	192.83	112,331,690	10.63
9	FRANCE	152,503,834	152,623,168	42.45	0.08	119,334	5.97
10	PHILIPPINES	36,648,209	128,720,387	35.81	251.23	92,072,178	30.25
11	ITALY	115,789,645	101,835,973	24.08	-12.05	-13,953,672	8.90
12	MALAYSIA	82,710,185	85,478,017	111.14	3.35	2,767,832	13.36
13	CHINA (MAINLAND)	56,501,851	81,778,042	60.71	44.74	25,276,191	9.31
14	HONG KONG	57,561,318	79,896,125	16.29	38.80	22,334,807	9.18
15	MEXICO	68,691,430	79,504,382	47.22	15.74	10,812,952	2.11
16	IRELAND	50,985,530	67,396,209	-39.62	32.19	16,410,679	10.28
17	AUSTRALIA	59,282,015	63,821,190	2.03	7.66	4,539,175	6.04
18	SWEDEN	47,055,770	61,712,897	-29.39	31.15	14,657,127	12.11
19	BRAZIL	36,183,674	60,020,912	6.88	65.88	23,837,238	5.07
20	SPAIN	31,981,321	43,339,080	-7.55	35.51	11,357,759	8.08
TOP 10 GROWTH COUNTRIES		1999	2000	%98-99	%99-00	\$Incr 99-00	%US
1	CHINA (TAIWAN)	211,661,216	413,110,215	59.79	95.18	201,448,999	17.96
2	KOREA, REPUBLIC OF	58,253,148	170,584,838	-16.76	192.83	112,331,690	10.63
3	PHILIPPINES	36,648,209	128,720,387	35.81	251.23	92,072,178	30.25
4	JAPAN	539,801,649	610,420,719	7.40	13.08	70,619,070	9.43
5	NETHERLANDS	366,781,437	434,312,822	10.71	18.41	67,531,385	18.49
6	SINGAPORE	188,979,237	240,663,162	66.85	27.35	51,683,925	16.17
7	CANADA	221,084,463	263,913,798	-3.98	19.37	42,829,335	3.68
8	UNITED KINGDOM	311,688,193	344,581,889	0.01	10.55	32,893,696	9.01
9	CHINA (MAINLAND)	56,501,851	81,778,042	60.71	44.74	25,276,191	9.31
10	BRAZIL	36,183,674	60,020,912	6.88	65.88	23,837,238	5.07
TOP 10 LOSSES BY COUNTRY		1999	2000	%98-99	%99-00	\$Incr 99-00	%US
1	EGYPT	20,646,104	4,455,860	433.42	-78.42	-16,190,244	3.98
2	BELGIUM	51,668,486	36,784,105	14.29	-28.81	-14,884,381	4.07
3	ITALY	115,789,645	101,835,973	24.08	-12.05	-13,953,672	8.90
4	FINLAND	10,276,303	5,486,402	7.94	-46.61	-4,789,901	3.45
5	SAUDI ARABIA	11,290,677	8,772,204	-21.38	-22.31	-2,518,473	4.62
6	GHANA	2,558,054	206,302	2,000.74	-91.94	-2,351,752	3.08
7	ARGENTINA	13,364,349	11,158,411	-16.44	-16.51	-2,205,938	3.60
8	GREECE	9,120,992	7,096,526	44.65	-22.20	-2,024,466	5.50
9	HUNGARY	4,123,299	2,116,283	81.45	-48.68	-2,007,016	6.93
10	UNITED ARAB EMIRATES	9,772,488	7,940,811	81.06	-18.74	-1,831,677	6.00

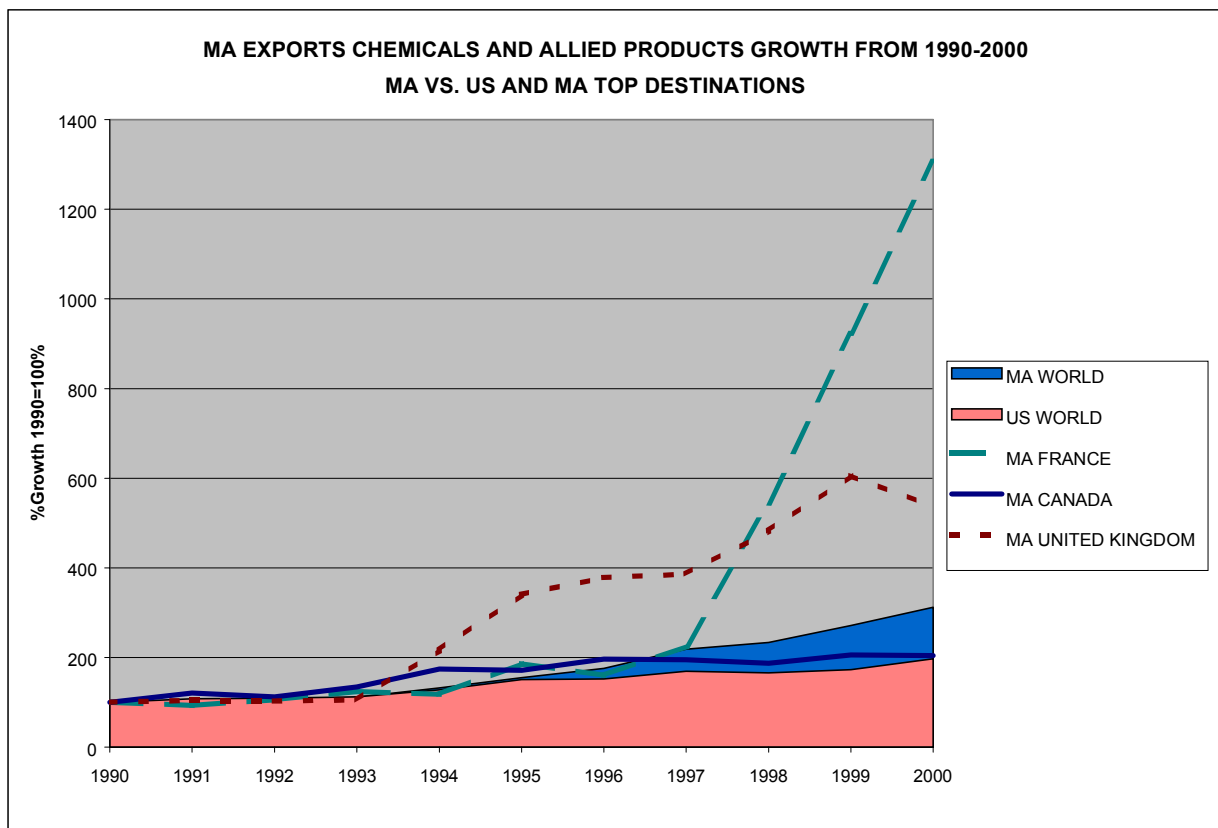
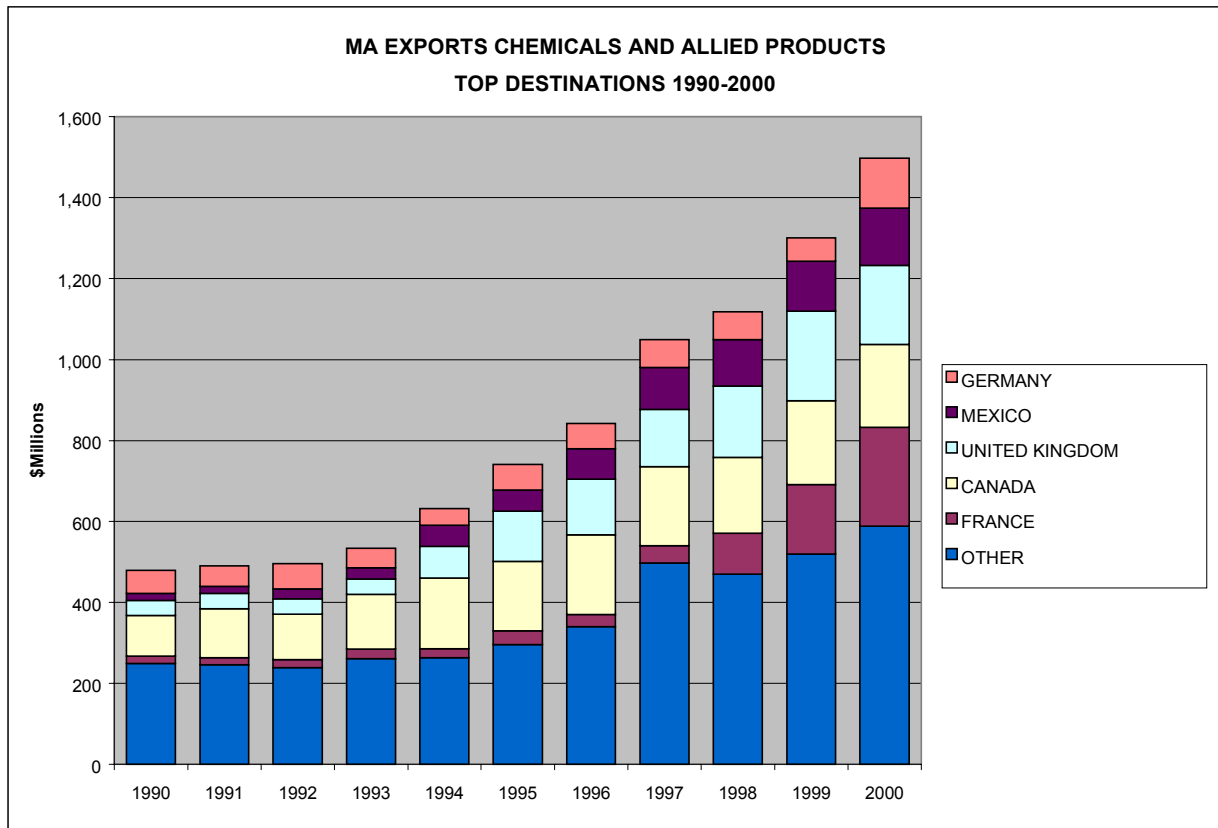


Massachusetts Exports SIC 28: Chemicals And Allied Products
Leading Commodities by \$Value, Growth, and Loss of Shipments 1999-2000

HS 6	TOP 20 COMMODITIES	1999	2000	\$Incr 99-00	%99-00	%US
1	300490 MEDICAMENTS NESOI, MEASURED DOSES, RETAIL PK NESOI	214,945,984	220,671,615	5,725,631	2.66	4.55
2	293799 HORMONES AND DERIV NESOI, STEROIDS ETC NESOI	120,537,542	183,158,980	62,621,438	51.95	83.86
3	382200 COMPOSITE DIAGNOSTIC/LAB REAGENTS, EXC PHARMACEUT	74,420,069	131,713,153	57,293,084	76.99	5.32
4	300210 ANTISERA AND BLOOD FRACTIONS, IMMUN PRODUCTS	89,403,746	101,209,029	11,805,283	13.20	7.06
5	390740 POLYCARBONATES, PR FMS	28,130,376	46,521,251	18,390,875	65.38	5.94
6	300439 HORMONES ETC. (NO ANTIBIOTICS CONTAINED) DOSAGE FM	135,979,617	38,441,686	-97,537,931	-71.73	18.95
7	284440 RADIOACTIVE ELEMENTS & ISOTOPES ETC NESOI; RESIDUE	31,914,736	31,712,916	-201,820	-0.63	25.82
8	382490* PRODUCTS AND RESIDUALS OF CHEMICAL INDUSTRY, NESOI	23,466,482	29,981,862	6,515,380	27.76	2.12
9	300220 VACCINES FOR HUMAN MEDICINE	859,933	28,751,312	27,891,379	3,243.44	11.72
10	330720 PERSONAL DEODORANTS AND ANTIPERSPIRANTS	35,081,384	26,526,722	-8,554,662	-24.39	18.34
11	350790 ENZYMES AND PREPARED ENZYMES, NESOI	23,453,609	24,564,850	1,111,241	4.74	10.51
12	330710 PRE-SHAVE, SHAVING OR AFTER-SHAVE PREPARATIONS	27,512,484	23,993,014	-3,519,470	-12.79	46.85
13	391000 SILICONES, IN PRIMARY FORMS	21,562,090	23,819,676	2,257,586	10.47	4.87
14	390690 ACRYLIC POLYMERS NESOI, IN PRIMARY FORMS	15,085,065	21,625,088	6,540,023	43.35	2.97
15	390950 POLYURETHANES, IN PRIMARY FORMS	12,855,999	20,268,563	7,412,564	57.66	6.26
16	283719 CYANIDES AND CYANIDE OXIDES, NESOI	768,688	17,010,492	16,241,804	2,112.93	56.50
17	540249 SYN FIL YN, NOSEW NORET OTHSING NOV50T YARN NESOI	8,342,767	16,931,640	8,588,873	102.95	10.33
18	300339 MEDICAMENT CONT HORMONES, NO ANTIBIOTICS, NO DOSES	3,912,914	15,087,503	11,174,589	285.58	21.94
19	390599 VINYL POLYMERS IN PRIMARY FORMS, N.E.S.O.I.	11,781,228	14,898,415	3,117,187	26.46	15.78
20	280300 CARBON, NESOI (INCLUDING CARBON BLACK)	3,159,481	14,880,292	11,720,811	370.97	8.08
HS 6	TOP 10 GROWTH COMMODITIES	1999	2000	\$Incr 99-00	%99-00	%US
1	293799 HORMONES AND DERIV NESOI, STEROIDS ETC NESOI	120,537,542	183,158,980	62,621,438	51.95	83.86
2	382200 COMPOSITE DIAGNOSTIC/LAB REAGENTS, EXC PHARMACEUT	74,420,069	131,713,153	57,293,084	76.99	5.32
3	300220 VACCINES FOR HUMAN MEDICINE	859,933	28,751,312	27,891,379	3,243.44	11.72
4	390740 POLYCARBONATES, PR FMS	28,130,376	46,521,251	18,390,875	65.38	5.94
5	283719 CYANIDES AND CYANIDE OXIDES, NESOI	768,688	17,010,492	16,241,804	2,112.93	56.50
6	300210 ANTISERA AND BLOOD FRACTIONS, IMMUN PRODUCTS	89,403,746	101,209,029	11,805,283	13.20	7.06
7	280300 CARBON, NESOI (INCLUDING CARBON BLACK)	3,159,481	14,880,292	11,720,811	370.97	8.08
8	300339 MEDICAMENT CONT HORMONES, NO ANTIBIOTICS, NO DOSES	3,912,914	15,087,503	11,174,589	285.58	21.94
9	540249 SYN FIL YN, NOSEW NORET OTHSING NOV50T YARN NESOI	8,342,767	16,931,640	8,588,873	102.95	10.33
10	390950 POLYURETHANES, IN PRIMARY FORMS	12,855,999	20,268,563	7,412,564	57.66	6.26
HS 6	TOP 10 LOSSES BY COMMODITY	1999	2000	\$Incr 99-00	%99-00	%US
1	300439 HORMONES ETC. (NO ANTIBIOTICS CONTAINED) DOSAGE FM	135,979,617	38,441,686	-97,537,931	-71.73	18.95
2	321410 MASTICS; PAINTERS' FILLINGS	13,277,786	4,501,488	-8,776,298	-66.10	2.58
3	330720 PERSONAL DEODORANTS AND ANTIPERSPIRANTS	35,081,384	26,526,722	-8,554,662	-24.39	18.34
4	390319 POLYSTYRENE NESOI, PR FMS	14,886,646	7,542,879	-7,343,767	-49.33	2.49
5	300120 EXTRACTS OF GLANDS OR OTHER ORGS OR SECRETIONS	4,933,884	397,251	-4,536,633	-91.95	3.51
6	330710 PRE-SHAVE, SHAVING OR AFTER-SHAVE PREPARATIONS	27,512,484	23,993,014	-3,519,470	-12.79	46.85
7	390422 POLYMERS NESOI OF POLYVINYL CHLORIDE, PLASTICIZED	9,534,970	6,092,865	-3,442,105	-36.10	3.64
8	284210 DOUBLE OR COMPLEX SILICATES	3,770,720	911,169	-2,859,551	-75.84	1.81
9	350300 GELATIN & DERIV; ISINGLASS; GLUES, ANIMAL OR NESOI	13,726,474	10,918,138	-2,808,336	-20.46	12.20
10	390720 POLYETHERS NESOI, PR FMS	10,699,105	8,514,348	-2,184,757	-20.42	1.22

Massachusetts Exports SIC 28: Chemicals And Allied Products
Leading Destinations by \$Value, Growth, and Loss of Shipments 1999-2000

TOP 20 DESTINATIONS		1999	2000	%98-99	%99-00	\$Incr 99-00	%US
TOTAL ALL COUNTRIES		1,300,433,969	1,497,011,074	16.31	15.12	196,577,105	1.90
1	FRANCE	172,153,383	243,808,715	69.59	41.62	71,655,332	9.37
2	CANADA	206,540,060	204,489,555	10.08	-0.99	-2,050,505	1.32
3	UNITED KINGDOM	220,953,943	195,522,950	25.56	-11.51	-25,430,993	5.14
4	MEXICO	124,040,606	141,687,120	8.77	14.23	17,646,514	1.74
5	GERMANY	57,273,896	122,792,318	-17.49	114.39	65,518,422	4.81
6	JAPAN	78,992,652	120,477,088	-3.16	52.52	41,484,436	2.03
7	NETHERLANDS	139,328,502	65,790,282	58.81	-52.78	-73,538,220	1.73
8	BRAZIL	34,831,725	39,139,967	-2.89	12.37	4,308,242	1.34
9	BELGIUM	25,291,776	31,804,931	0.77	25.75	6,513,155	0.70
10	HONG KONG	19,090,245	30,174,665	15.47	58.06	11,084,420	2.34
11	SINGAPORE	7,666,217	30,033,738	-18.33	291.77	22,367,521	2.05
12	IRELAND	10,563,459	28,130,915	52.45	166.30	17,567,456	2.45
13	ITALY	23,295,819	26,685,944	28.78	14.55	3,390,125	1.25
14	CHINA (TAIWAN)	14,369,883	23,276,027	12.61	61.98	8,906,144	0.93
15	AUSTRALIA	17,548,800	20,957,906	5.04	19.43	3,409,106	1.24
16	KOREA, REPUBLIC OF	14,887,452	20,019,972	19.43	34.48	5,132,520	0.77
17	ARGENTINA	11,201,907	18,545,350	53.68	65.56	7,343,443	1.69
18	ISRAEL	19,142,416	17,971,191	10.34	-6.12	-1,171,225	4.66
19	AUSTRIA	2,001,028	14,306,571	-27.22	614.96	12,305,543	8.04
20	TURKEY	5,677,193	6,980,148	14.62	22.95	1,302,955	1.95
TOP 10 GROWTH COUNTRIES		1999	2000	%98-99	%99-00	\$Incr 99-00	%US
1	FRANCE	172,153,383	243,808,715	69.59	41.62	71,655,332	9.37
2	GERMANY	57,273,896	122,792,318	-17.49	114.39	65,518,422	4.81
3	JAPAN	78,992,652	120,477,088	-3.16	52.52	41,484,436	2.03
4	SINGAPORE	7,666,217	30,033,738	-18.33	291.77	22,367,521	2.05
5	MEXICO	124,040,606	141,687,120	8.77	14.23	17,646,514	1.74
6	IRELAND	10,563,459	28,130,915	52.45	166.30	17,567,456	2.45
7	AUSTRIA	2,001,028	14,306,571	-27.22	614.96	12,305,543	8.04
8	HONG KONG	19,090,245	30,174,665	15.47	58.06	11,084,420	2.34
9	CHINA (TAIWAN)	14,369,883	23,276,027	12.61	61.98	8,906,144	0.93
10	ARGENTINA	11,201,907	18,545,350	53.68	65.56	7,343,443	1.69
TOP 10 LOSSES BY COUNTRY		1999	2000	%98-99	%99-00	\$Incr 99-00	%US
1	NETHERLANDS	139,328,502	65,790,282	58.81	-52.78	-73,538,220	1.73
2	UNITED KINGDOM	220,953,943	195,522,950	25.56	-11.51	-25,430,993	5.14
3	SWITZERLAND	11,539,970	5,793,646	-60.98	-49.79	-5,746,324	0.47
4	NORWAY	9,939,321	6,708,916	300.71	-32.50	-3,230,405	4.62
5	CANADA	206,540,060	204,489,555	10.08	-0.99	-2,050,505	1.32
6	THAILAND	6,344,862	4,671,565	21.75	-26.37	-1,673,297	0.77
7	POLAND	2,891,758	1,303,836	36.33	-54.91	-1,587,922	1.56
8	ISRAEL	19,142,416	17,971,191	10.34	-6.12	-1,171,225	4.66
9	VENEZUELA	5,497,189	4,727,780	14.23	-14.00	-769,409	0.60
10	FINLAND	2,181,331	1,475,837	27.05	-32.34	-705,494	1.96

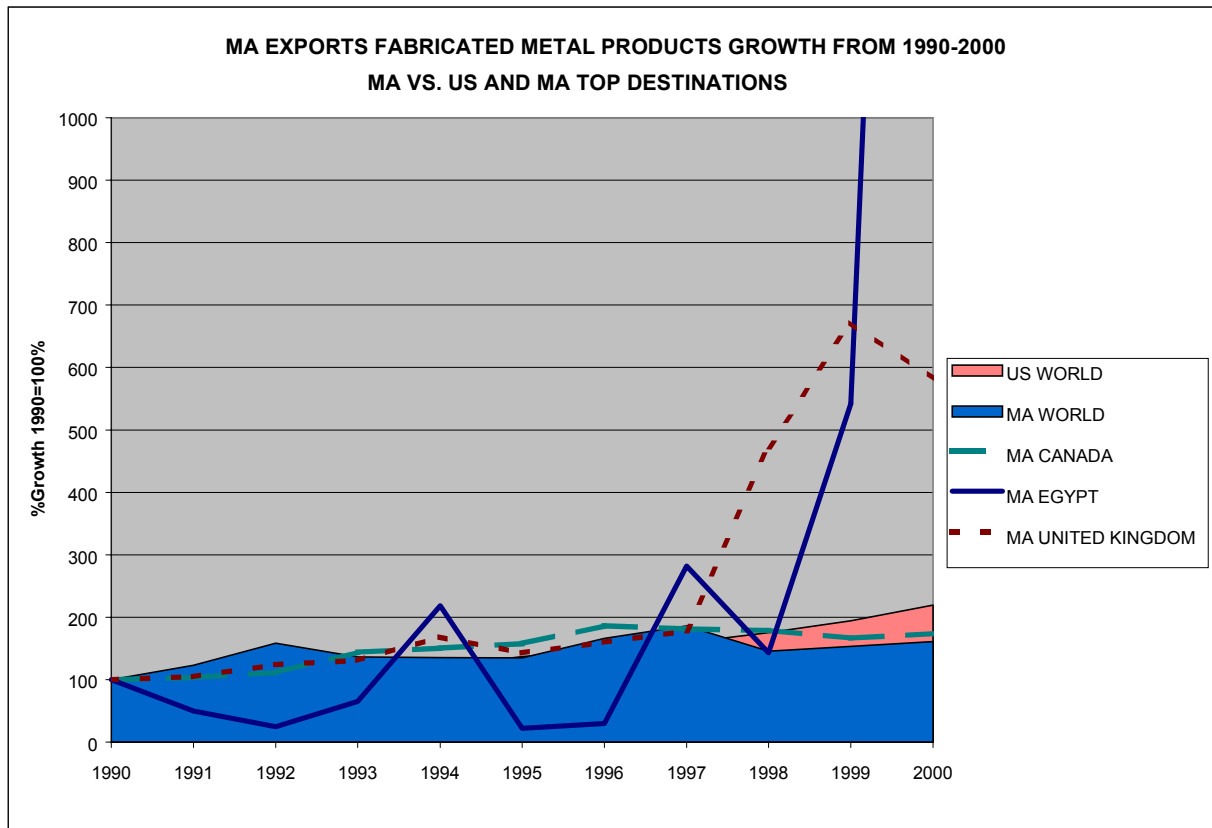
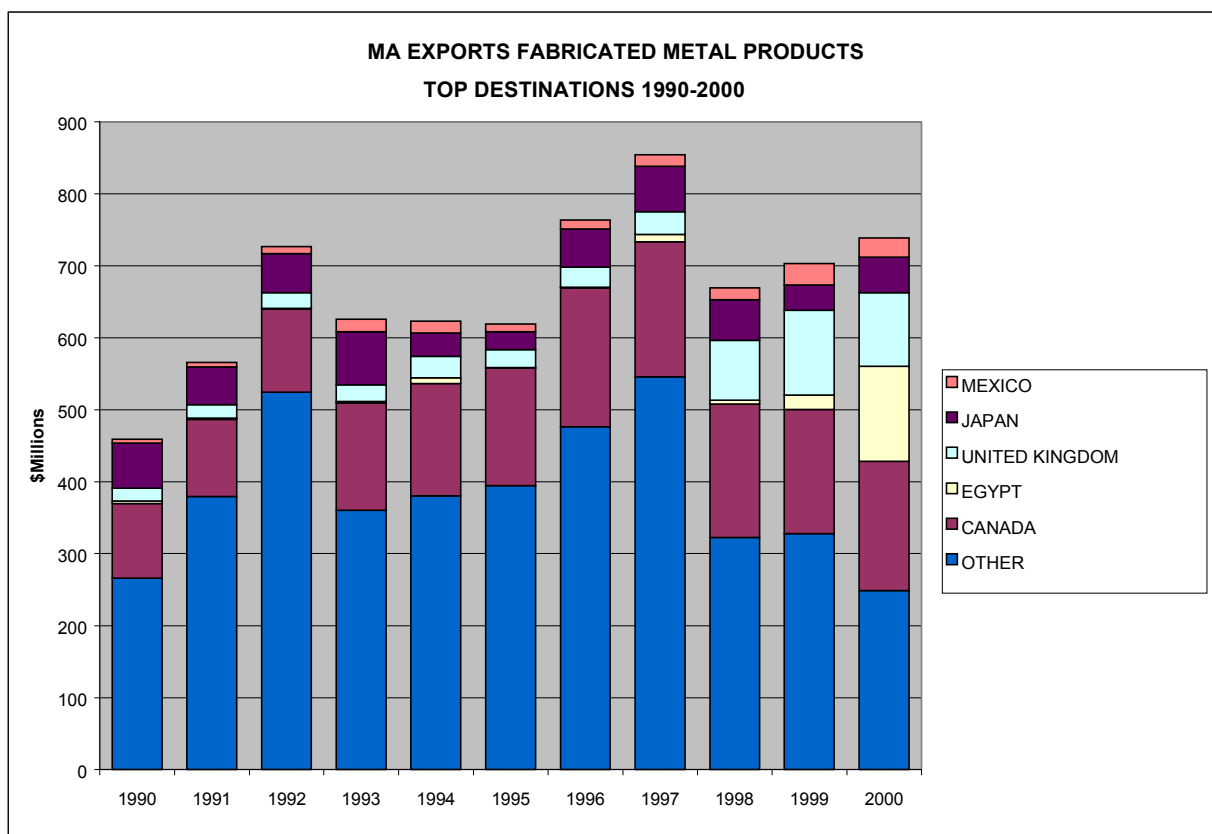


Massachusetts Exports SIC 34: Fabricated Metal Products
Leading Commodities by \$Value, Growth, and Loss of Shipments 1999-2000

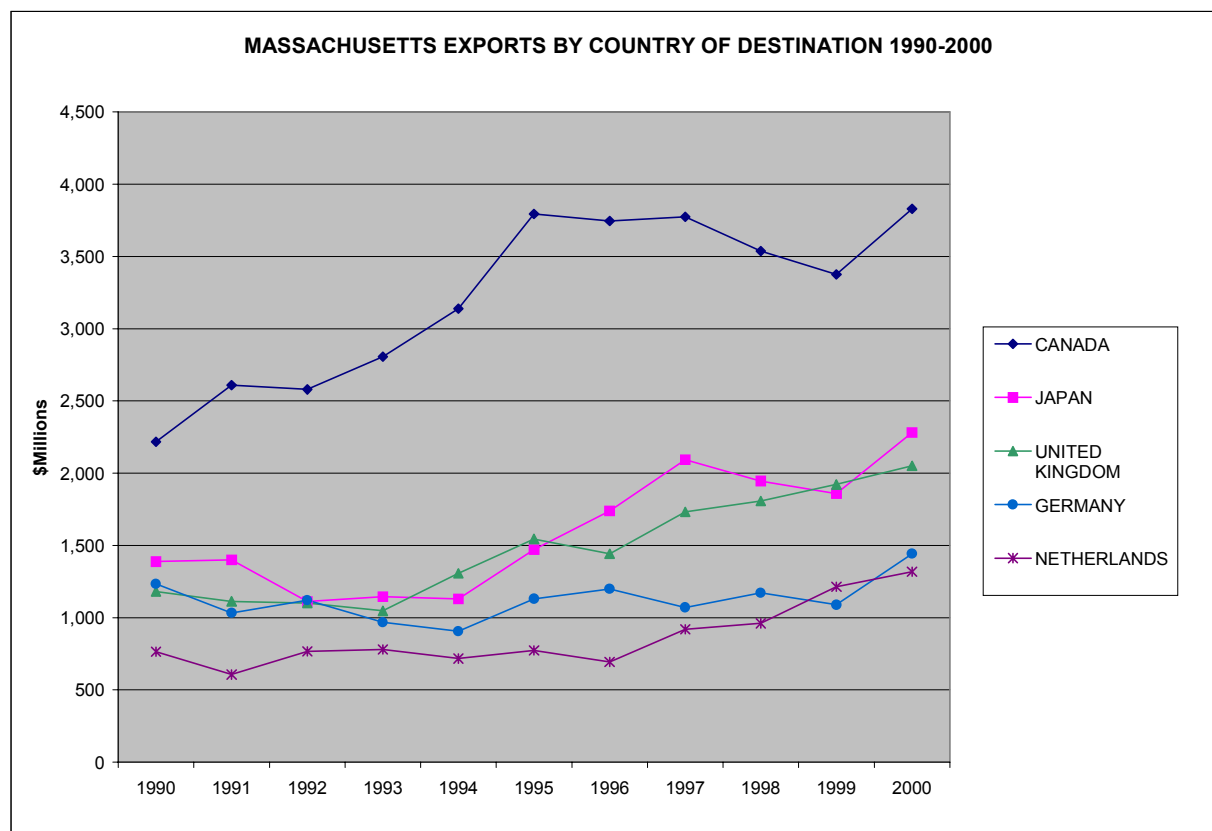
HS 6	TOP 20 COMMODITIES	1999	2000	\$Incr 99-00	%99-00	%US
1 821210	RAZORS	205,092,730	149,977,441	-55,115,289	-26.87	87.44
2 930690	BOMB MINES OT AMMNITION PROJCTIONS ETC AND PARTS	26,051,430	131,277,020	105,225,590	403.91	9.90
3 821220	SAFETY RAZOR BLADES AND BLADE BLANKS IN STRIPS	58,549,396	59,696,762	1,147,366	1.96	59.14
4 848180	TAPS COCKS ETC F PIPE VAT INC THERMO CONTROL NESOI	35,328,806	32,827,192	-2,501,614	-7.08	1.87
5 820220	BANDSAW BLADES, AND BASE METAL PARTS THEREOF	22,321,438	28,417,076	6,095,638	27.31	41.43
6 848190	PTS F TAPS ETC F PIPE VAT INC PRESS & THERMO CNTRL	19,624,922	16,987,947	-2,636,975	-13.44	1.85
7 732619	OTH ARTIC IOS FRGD OR STMPD, NT FURTH WRKD, NESOI	14,955,335	16,908,003	1,952,668	13.06	5.32
8 870829*	PTS & ACCESS OF BODIES OF MOTOR VEHICLES, NESOI	13,580,564	14,520,170	939,606	6.92	0.16
9 731815	THREADED SCREWS AND BOLTS NESOI OF IRON OR STEEL	20,248,309	11,212,977	-9,035,332	-44.62	1.26
10 930200	REVOLVERS & PISTOLS, DESIGNED TO FIRE LIVE AMMO	7,521,859	9,516,609	1,994,750	26.52	45.63
11 732690*	ARTICLES OF IRON OR STEEL NESOI	6,862,927	9,019,216	2,156,289	31.42	0.41
12 830160	PARTS OF LOCKS, BASE METAL	9,128,787	8,769,429	-359,358	-3.94	2.83
13 761699*	ARTICLES OF ALUMINUM, N.E.S.O.I.	7,315,863	7,851,724	535,861	7.32	1.33
14 848140	SAFETY OR RELIEF VALVES	10,155,764	7,721,434	-2,434,330	-23.97	4.03
15 760720	ALUMINUM FOIL NOT OVER 0.2MM THICK, BACKED	8,329,276	7,441,774	-887,502	-10.66	6.37
16 820730*	TOOLS FOR PRESSING, STAMPING OR PUNCHING, B M PTS	4,772,024	6,704,879	1,932,855	40.50	1.60
17 841950	HEAT EXCHANGE UNITS, INDUSTRIAL TYPE	6,318,639	6,321,691	3,052	0.05	2.25
18 711890	COIN, NESOI	1,664,702	6,303,655	4,638,953	278.67	7.26
19 840490	PARTS FOR AUX PLT FOR BLRS,COND FOR STM,VPR PR UNT	19,459	5,923,494	5,904,035	30,340.90	7.35
20 761290	CASKS ETC, NOT OVER 300 LITER CAP NESOI, ALUMINUM	3,009,998	5,297,205	2,287,207	75.99	3.34
HS 6	TOP 10 GROWTH COMMODITIES	1999	2000	\$Incr 99-00	%99-00	%US
1 930690	BOMB MINES OT AMMNITION PROJCTIONS ETC AND PARTS	26,051,430	131,277,020	105,225,590	403.91	9.90
2 820220	BANDSAW BLADES, AND BASE METAL PARTS THEREOF	22,321,438	28,417,076	6,095,638	27.31	41.43
3 840490	PARTS FOR AUX PLT FOR BLRS,COND FOR STM,VPR PR UNT	19,459	5,923,494	5,904,035	30,340.90	7.35
4 711890	COIN, NESOI	1,664,702	6,303,655	4,638,953	278.67	7.26
5 848120	VALVES F OLEOHYDRAULIC OR PNEUMATIC TRANSMISSIONS	392,031	4,670,296	4,278,265	1,091.31	1.58
6 731600	ANCHORS, GRAPNELS AND PARTS THEREOF, OF IRON/STEEL	72,901	2,699,305	2,626,404	3,602.70	30.88
7 732190*	PARTS OF NONELEC DOMEST COOKING APPL, IRON & STEEL	36,300	2,596,480	2,560,180	7,052.84	4.94
8 761290	CASKS ETC, NOT OVER 300 LITER CAP NESOI, ALUMINUM	3,009,998	5,297,205	2,287,207	75.99	3.34
9 732690*	ARTICLES OF IRON OR STEEL NESOI	6,862,927	9,019,216	2,156,289	31.42	0.41
10 930200	REVOLVERS & PISTOLS, DESIGNED TO FIRE LIVE AMMO	7,521,859	9,516,609	1,994,750	26.52	45.63
HS 6	TOP 10 LOSSES BY COMMODITY	1999	2000	\$Incr 99-00	%99-00	%US
1 821210	RAZORS	205,092,730	149,977,441	-55,115,289	-26.87	87.44
2 930100*	MILITARY WEAPONS EX REVOLVERS PISTOLS LANCES ETC	16,401,248	834,777	-15,566,471	-94.91	0.25
3 731815	THREADED SCREWS AND BOLTS NESOI OF IRON OR STEEL	20,248,309	11,212,977	-9,035,332	-44.62	1.26
4 890790	FLOATING STRUCTURES EXCEPT INFLATABLE RAFTS	4,392,732	1,140,293	-3,252,439	-74.04	1.12
5 848190	PTS F TAPS ETC F PIPE VAT INC PRESS & THERMO CNTRL	19,624,922	16,987,947	-2,636,975	-13.44	1.85
6 848180	TAPS COCKS ETC F PIPE VAT INC THERMO CONTROL NESOI	35,328,806	32,827,192	-2,501,614	-7.08	1.87
7 848140	SAFETY OR RELIEF VALVES	10,155,764	7,721,434	-2,434,330	-23.97	4.03
8 741021	COPPER FOIL, NOV.15MM THICK, BACKED, REFIN COPPER	6,613,645	4,195,925	-2,417,720	-36.56	4.30
9 940600*	PREFABRICATED BUILDINGS	3,489,574	1,845,635	-1,643,939	-47.11	0.54
10 741999*	ARTICLES OF COPPER NESOI	2,353,513	981,600	-1,371,913	-58.29	0.48

Massachusetts Exports SIC 34: Fabricated Metal Products
Leading Destinations by \$Value, Growth, and Loss of Shipments 1999-2000

TOP 20 DESTINATIONS		1999	2000	%98-99	%99-00	\$Incr 99-00	%US
TOTAL ALL COUNTRIES		703,141,259	738,810,992	5.08	5.07	35,669,733	2.84
1	CANADA	172,392,922	179,598,868	-6.89	4.18	7,205,946	1.67
2	EGYPT	20,177,880	131,954,320	278.97	553.96	111,776,440	48.31
3	UNITED KINGDOM	118,015,623	102,158,862	41.94	-13.44	-15,856,761	9.69
4	JAPAN	34,974,148	49,418,953	-38.57	41.30	14,444,805	5.24
5	MEXICO	29,845,614	26,888,624	86.04	-9.91	-2,956,990	0.47
6	BRAZIL	9,519,140	20,423,168	119.11	114.55	10,904,028	9.79
7	BELGIUM	13,177,806	18,223,787	0.50	38.29	5,045,981	8.37
8	HONG KONG	19,846,186	16,305,532	0.18	-17.84	-3,540,654	8.66
9	AUSTRALIA	17,332,511	14,575,927	43.29	-15.90	-2,756,584	4.66
10	GERMANY	21,555,097	13,800,309	-40.58	-35.98	-7,754,788	2.24
11	INDIA	3,751,679	12,602,414	-8.61	235.91	8,850,735	16.50
12	KOREA, REPUBLIC OF	17,679,516	11,847,721	139.07	-32.99	-5,831,795	2.96
13	SINGAPORE	7,410,221	9,768,730	1.63	31.83	2,358,509	2.88
14	CHINA (MAINLAND)	14,284,456	9,001,448	104.00	-36.98	-5,283,008	2.74
15	GREECE	1,270,575	8,852,017	137.48	596.69	7,581,442	3.34
16	FRANCE	16,105,660	8,664,889	10.33	-46.20	-7,440,771	2.54
17	NETHERLANDS	11,529,357	8,000,131	-33.39	-30.61	-3,529,226	4.00
18	MALAYSIA	22,734,992	5,945,422	255.21	-73.85	-16,789,570	4.21
19	UNITED ARAB EMIRATES	12,554,246	5,682,431	179.61	-54.74	-6,871,815	7.80
20	LUXEMBOURG	1,105,417	5,657,379	-22.24	411.79	4,551,962	31.71
TOP 10 GROWTH COUNTRIES		1999	2000	%98-99	%99-00	\$Incr 99-00	%US
1	EGYPT	20,177,880	131,954,320	278.97	553.96	111,776,440	48.31
2	JAPAN	34,974,148	49,418,953	-38.57	41.30	14,444,805	5.24
3	BRAZIL	9,519,140	20,423,168	119.11	114.55	10,904,028	9.79
4	INDIA	3,751,679	12,602,414	-8.61	235.91	8,850,735	16.50
5	GREECE	1,270,575	8,852,017	137.48	596.69	7,581,442	3.34
6	CANADA	172,392,922	179,598,868	-6.89	4.18	7,205,946	1.67
7	BELGIUM	13,177,806	18,223,787	0.50	38.29	5,045,981	8.37
8	LUXEMBOURG	1,105,417	5,657,379	-22.24	411.79	4,551,962	31.71
9	SWEDEN	548,383	3,179,124	-68.47	479.73	2,630,741	3.86
10	SPAIN	2,488,473	5,053,083	-32.12	103.06	2,564,610	4.98
TOP 10 LOSSES BY COUNTRY		1999	2000	%98-99	%99-00	\$Incr 99-00	%US
1	SAUDI ARABIA	21,500,498	2,030,462	1,137.07	-90.56	-19,470,036	1.27
2	MALAYSIA	22,734,992	5,945,422	255.21	-73.85	-16,789,570	4.21
3	UNITED KINGDOM	118,015,623	102,158,862	41.94	-13.44	-15,856,761	9.69
4	CHINA (TAIWAN)	16,972,576	5,178,444	-59.63	-69.49	-11,794,132	1.00
5	TURKEY	11,582,252	2,026,451	40.22	-82.50	-9,555,801	3.44
6	GERMANY	21,555,097	13,800,309	-40.58	-35.98	-7,754,788	2.24
7	FRANCE	16,105,660	8,664,889	10.33	-46.20	-7,440,771	2.54
8	UNITED ARAB EMIRATES	12,554,246	5,682,431	179.61	-54.74	-6,871,815	7.80
9	KOREA, REPUBLIC OF	17,679,516	11,847,721	139.07	-32.99	-5,831,795	2.96
10	CHINA (MAINLAND)	14,284,456	9,001,448	104.00	-36.98	-5,283,008	2.74



IV. MAJOR DESTINATIONS FOR MASSACHUSETTS EXPORTS



Canada remains by far the premier destination for Bay State exports in the year 2000. However, export growth over the decade to each of the state's five leading destinations, including Canada, Japan, United Kingdom, Germany, and Netherlands, was well below Massachusetts' average rate of growth to the world. Massachusetts' exports expanded much more quickly in developing markets in Mexico and other Latin American countries, Asia, and Eastern Europe. (See table 5 page 60.) Of the top five markets, all but Canada are countries of specialization for Massachusetts. (Since MA exports 2.83% of total US exports to the world, any country with a share greater than 2.83% can be considered a country of specialization for the state.)

Table 4 shows export growth and share of US exports for Massachusetts' leading destinations in the year 2000. Exports rebounded in both Canada and Japan after two years of decline and also made a very strong comeback in Germany after a decline in 1999. Massachusetts' markets of greatest specialization include Ireland (MA ships 8.9% of the US total), Netherlands (6%), France (5.4%), Philippines (5.1%), United Kingdom (4.9%), and Germany (4.9%). In the year 2000 Canada, Taiwan, Korea, and Japan had the largest increases in imports from Massachusetts, while Saudi Arabia, Finland, and Belgium had the largest decreases.

Table 4
Massachusetts Exports by Country of Destination 1999-2000
Leading Destinations by \$Value, Growth, Loss of Shipments

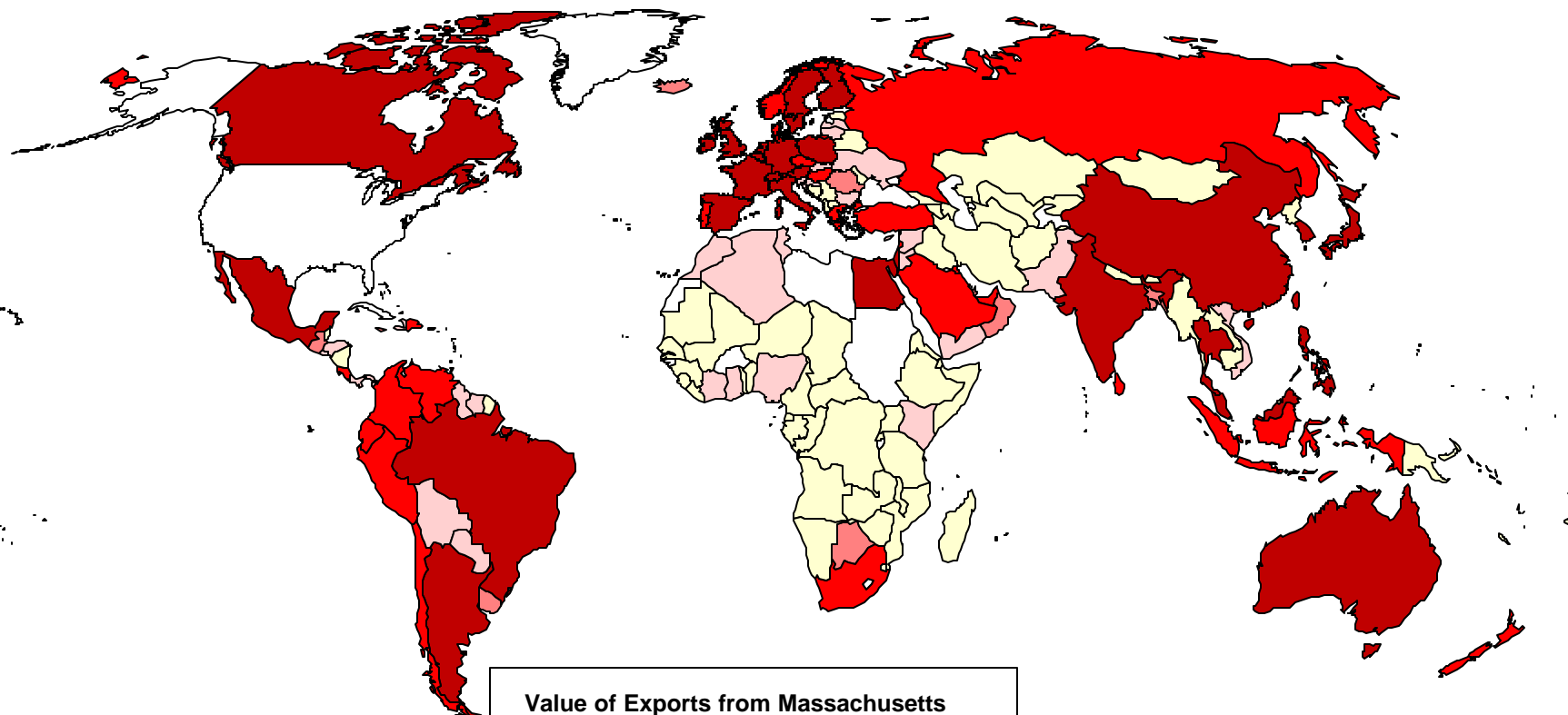
TOP 20 COUNTRIES		1999	2000	%98-99	%99-00	\$Incr 99-00	%US
TOTAL ALL COUNTRIES		18,190,114,782	22,061,446,586	5.81	21.28	3,871,331,804	2.83
1	CANADA	3,376,074,785	3,829,476,382	-4.57	13.43	453,401,597	2.17
2	JAPAN	1,858,795,221	2,281,393,868	-4.46	22.74	422,598,647	3.50
3	UNITED KINGDOM	1,921,447,260	2,052,721,106	6.24	6.83	131,273,846	4.94
4	GERMANY	1,089,427,404	1,442,274,766	-7.04	32.39	352,847,362	4.93
5	NETHERLANDS	1,214,536,978	1,318,605,886	26.46	8.57	104,068,908	6.00
6	CHINA (TAIWAN)	705,924,658	1,142,767,316	19.75	61.88	436,842,658	4.69
7	FRANCE	818,474,011	1,089,457,617	17.54	33.11	270,983,606	5.38
8	KOREA, REPUBLIC OF	538,723,209	974,977,609	46.18	80.98	436,254,400	3.49
9	MEXICO	679,304,868	763,000,508	31.60	12.32	83,695,640	0.68
10	SINGAPORE	593,702,457	746,438,434	35.14	25.73	152,735,977	4.19
11	IRELAND	497,905,552	690,699,235	21.04	38.72	192,793,683	8.94
12	CHINA (MAINLAND)	365,942,260	537,160,493	15.42	46.79	171,218,233	3.30
13	HONG KONG	402,505,334	524,766,468	-7.48	30.38	122,261,134	3.59
14	PHILIPPINES	260,076,456	451,080,517	-15.12	73.44	191,004,061	5.13
15	ITALY	389,026,119	446,198,483	6.61	14.70	57,172,364	4.06
16	MALAYSIA	264,290,531	420,222,081	47.81	59.00	155,931,550	3.82
17	BRAZIL	244,817,683	318,536,674	9.71	30.11	73,718,991	2.07
18	BELGIUM	337,042,860	314,984,754	6.41	-6.54	-22,058,106	2.26
19	ISRAEL	231,454,745	284,170,940	20.63	22.78	52,716,195	3.67
20	AUSTRALIA	293,123,963	275,779,648	3.11	-5.92	-17,344,315	2.21
TOP 10 GROWTH COUNTRIES		1999	2000	%98-99	%99-00	\$Incr 99-00	%US
1	CANADA	3,376,074,785	3,829,476,382	-4.57	13.43	453,401,597	2.17
2	CHINA (TAIWAN)	705,924,658	1,142,767,316	19.75	61.88	436,842,658	4.69
3	KOREA, REPUBLIC OF	538,723,209	974,977,609	46.18	80.98	436,254,400	3.49
4	JAPAN	1,858,795,221	2,281,393,868	-4.46	22.74	422,598,647	3.50
5	GERMANY	1,089,427,404	1,442,274,766	-7.04	32.39	352,847,362	4.93
6	FRANCE	818,474,011	1,089,457,617	17.54	33.11	270,983,606	5.38
7	IRELAND	497,905,552	690,699,235	21.04	38.72	192,793,683	8.94
8	PHILIPPINES	260,076,456	451,080,517	-15.12	73.44	191,004,061	5.13
9	CHINA (MAINLAND)	365,942,260	537,160,493	15.42	46.79	171,218,233	3.30
10	MALAYSIA	264,290,531	420,222,081	47.81	59.00	155,931,550	3.82
TOP 10 LOSSES BY COUNTRY		1999	2000	%98-99	%99-00	\$Incr 99-00	%US
1	SAUDI ARABIA	119,016,972	33,334,344	98.97	-71.99	-85,682,628	0.54
2	FINLAND	110,934,597	60,937,901	-26.90	-45.07	-49,996,696	3.88
3	BELGIUM	337,042,860	314,984,754	6.41	-6.54	-22,058,106	2.26
4	REPUBLIC OF SOUTH AFRICA	63,454,132	46,072,354	4.17	-27.39	-17,381,778	1.49
5	AUSTRALIA	293,123,963	275,779,648	3.11	-5.92	-17,344,315	2.21
6	HONDURAS	14,035,363	2,226,547	-31.73	-84.14	-11,808,816	0.09
7	BRUNEI	11,326,166	812,680	1,619.21	-92.82	-10,513,486	0.52
8	COLOMBIA	35,121,277	25,837,203	-26.34	-26.43	-9,284,074	0.70
9	PERU	19,165,185	10,849,810	47.88	-43.39	-8,315,375	0.65
10	TURKEY	53,402,237	46,072,262	-25.72	-13.73	-7,329,975	1.23

MAPS

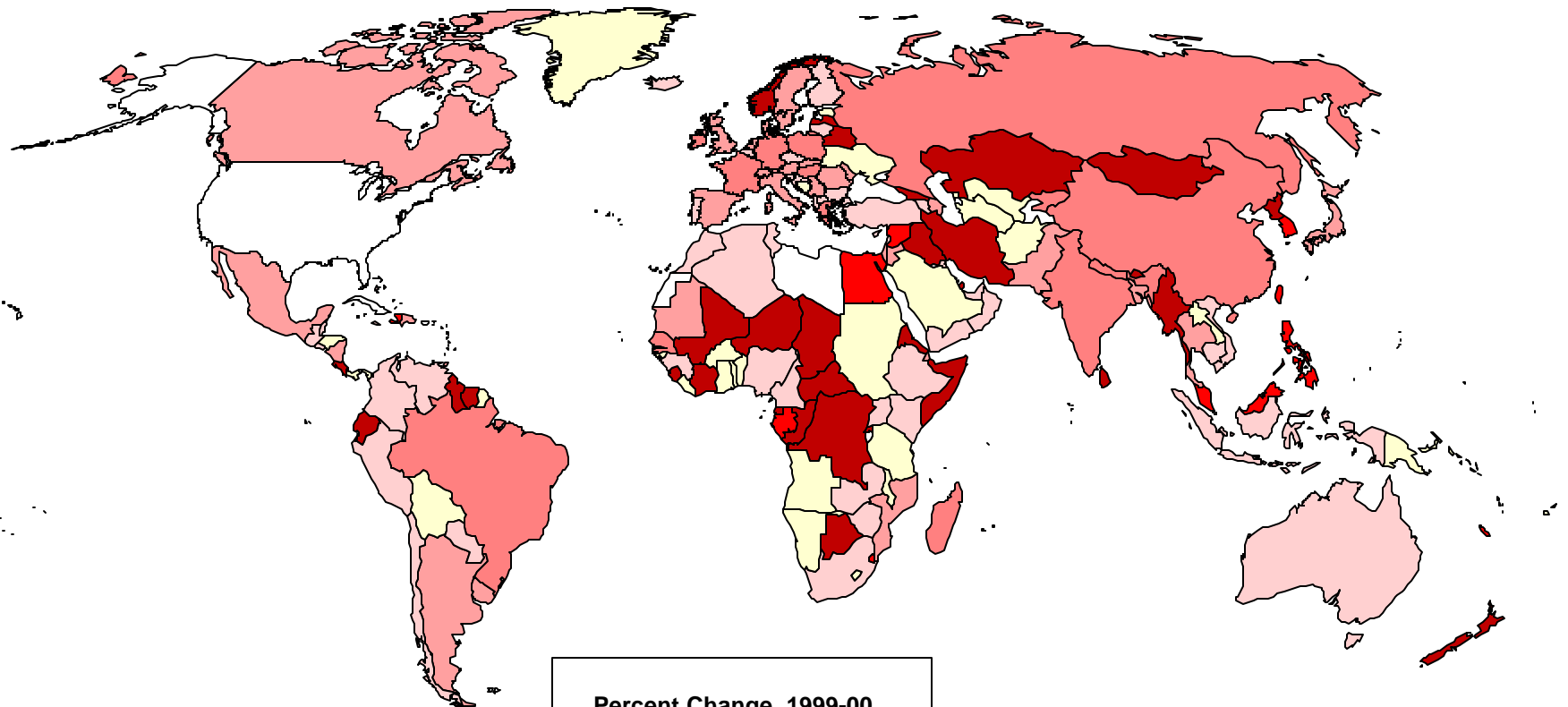
- **Massachusetts Exports: Annual 2000**
- **Massachusetts Exports: Percent Change 1999-2000**

The following maps further identify countries and regions of strength and weakness for Massachusetts. While it is easy for countries with small import volumes to grow quickly, several regions stand out with numerous fast growing countries and there are several countries that have both shipments over \$5 million and high growth rates. Among Latin American countries, Costa Rica and Ecuador had imports over \$5 million and growth over 50%, while Brazil had growth over 25% and Dominican Republic had 24% growth. Luxembourg was the only country with imports over \$5 million and growth over 50% in Western Europe. Ireland, Greece, France, and Germany sustained growth over 25%. In the Eastern European market, Poland, Russia, and Hungary had shipments over \$5 million and growth over 25%. In Asia, Taiwan, Korea, Philippines, Malaysia, Sri Lanka, and Qatar all had increases over 50% in 2000, while Singapore, China, Hong Kong, and India had growth over 25%. Many countries in Africa had large growth rates, but of those countries only Egypt and Botswana had shipments over \$5 million.

Massachusetts Exports: Annual 2000



Massachusetts Exports: Percent Change 1999-2000



Massachusetts's Top 5 Export Destinations

- **Canada**
- **Japan**
- **United Kingdom**
- **Germany**
- **Netherlands**

Overview

The following tables and graphs show additional details about Massachusetts's exports to its leading destinations. There are four charts and two tables for each industry. The stacked bar chart shows changes in the relative shares of the top industries for each country from 1990-2000, as well as total performance over the decade since the stacked segments sum to the state export total. The line chart compares MA and US total export growth to the countries from 1990-2000, as well as MA growth in each of its top three industries to the countries. The first table shows the top 20 industries and top 10 growth and loss industries to the countries. The second and third tables provide the leading commodity components of the industries in the first table. The fourth table shows top 20 and top 10 growth and loss commodities overall to the countries. Highlights of the detailed tables and graphs are presented below.

Canada

After two years of decline, Massachusetts' exports to Canada grew 13.4% to \$3.8 billion, regaining and surpassing peak 1995-1997 levels of shipments. Exports of MA's two leading industries to Canada, industrial machinery and computers and electronics, declined from 1996-1999. In the year 2000 the overall increase to Canada was due in large measure to a \$320 million (51%) increase in electronic and electric equipment. For the first time electronics surpassed machinery and computers as the leading MA export to Canada. There was also strong growth in instruments and paper shipments. The gains outweighed substantial declines in printing and publishing and special classifications (software).

Turbojets of a thrust over 25 knots, integrated circuits, computer parts and accessories, and computers were the leading exports to Canada in 2000. The largest gains occurred primarily in electronics products including integrated circuits, semiconductor devices, tantalum electrolytic fixed capacitors, and parts for line telephony. Printed books and brochures, computer storage units nesoi, and other record media nesoi (software) had the largest losses.

Japan

Massachusetts' exports to Japan also rebounded from a two-year decline in 2000. Growing at a rapid 22.7% pace, exports passed the \$2 billion mark again, reaching \$2.3 billion in total shipments. MA growth to Japan fell below national growth from 1992-1996, but surpassed the US pace thereafter. Massachusetts ships nearly equal amounts machinery and computers, instruments, and electronics, its three leading industries, to Japan. Over the past decade, growth in electronics and instruments was much stronger

than growth in machinery and computers. In the year 2000 electronics, machinery and computers, instruments, and chemicals had the largest export increases. Leather, fishing, and transportation equipment had the largest losses.

Medical needles nesoi and catheters, parts of electrical apparatus for line telephony, computer parts and accessories, laptop computers, and electronic monolithic integrated circuits nesoi were the leading Massachusetts commodities shipped to Japan in the year 2000. There was a substantial net expansion in exports of telecommunications related products and different varieties of integrated circuits. Computer parts had by far the largest decline of any commodity (-42%). Medical instruments, including ultrasonic scanning apparatus, needles and catheters, and surgical instruments, also sustained large losses.

United Kingdom

Massachusetts' exports to United Kingdom continued to expand at a moderate 6.8% pace, for the first time reaching sales of \$2 billion. Throughout the past decade Massachusetts' rate of increase in exports to UK nearly matched the US rate. MA increases in electronics were especially high beginning in 1994. In the year 2000 industrial machinery and computers, electronics, instruments, chemicals, and fabricated metals were the leading MA exports to UK. Electronics, machinery and computers, instruments had the largest export increases. There was also a significant increase in shipments of "used or second-hand merchandise", including paintings, drawings, and pastels by hand, and a large increase in primary metals, including non-monetary, unwrought gold. Chemicals, food products, and fabricated metals had the largest losses.

Computer parts and accessories, medicine for retail sale, metal oxide semiconductors, and razors were the leading Massachusetts commodities shipped in 2000. The largest export increases occurred in tantalum electrolytic fixed capacitors, gold, and paintings. There were also substantial gains in medical equipment, including electro-diagnostic apparatus and orthopedic or fracture apparatus, and in photographic film, and computer equipment. The largest losses were in medicine for retail sale, non-alcoholic beverages nesoi (non-concentrated, vitamin fortified fruit juice), computer parts, and unwrought silver.

Germany

In the year 2000 Massachusetts exports to Germany soared 32% in 2000 to reach \$1.4 billion in total shipments. From 1990-2000 MA's sales growth to Germany fell increasingly below national levels. Electronics shipments declined steadily from 1990-1993, but increased rapidly thereafter, surpassing machinery and computers as the leading export to Germany in 1999. Machinery and computers shipments actually declined slightly over the decade. Instruments expanded slowly and steadily throughout the 1990s and matched the value of shipments of both electronics and machinery/computers from 1995-1998, before electronics began its major upswing in 1999. The next largest industries, chemicals and primary metals, produced very little growth until 1999 and 2000. In the year 2000, shipments increased dramatically in all the top five industries except instruments. Chemicals shipments more than doubled.

Parts of electrical apparatus for line telephony was by far Massachusetts' leading and largest growth commodity shipped to Germany in 2000. However, the other leading components of growth in electronics were more consumer electronics oriented, including audio-frequency electric amplifiers, multiple loudspeakers, mounted in the same enclosure, and loudspeakers nesoi. Particle accelerators for semiconductors, vaccines for human medicine, flat-rolled, cold-rolled stainless steel, and instruments to check semiconductor wafers led growth in machinery/computers, chemicals, primary metals, and instruments. The largest losses occurred in electro-diagnostic apparatus, instruments for measuring liquid flows, magnetic tape, and parts of machine tools for wood working.

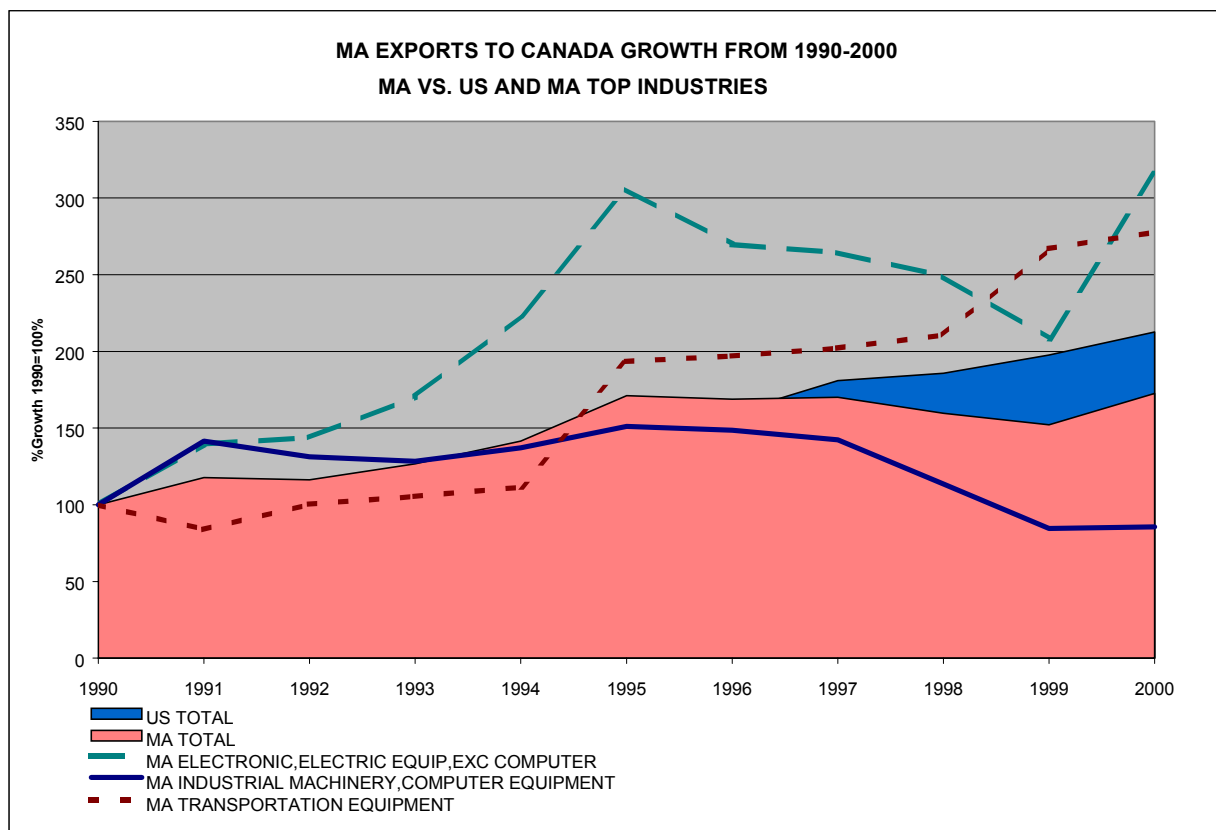
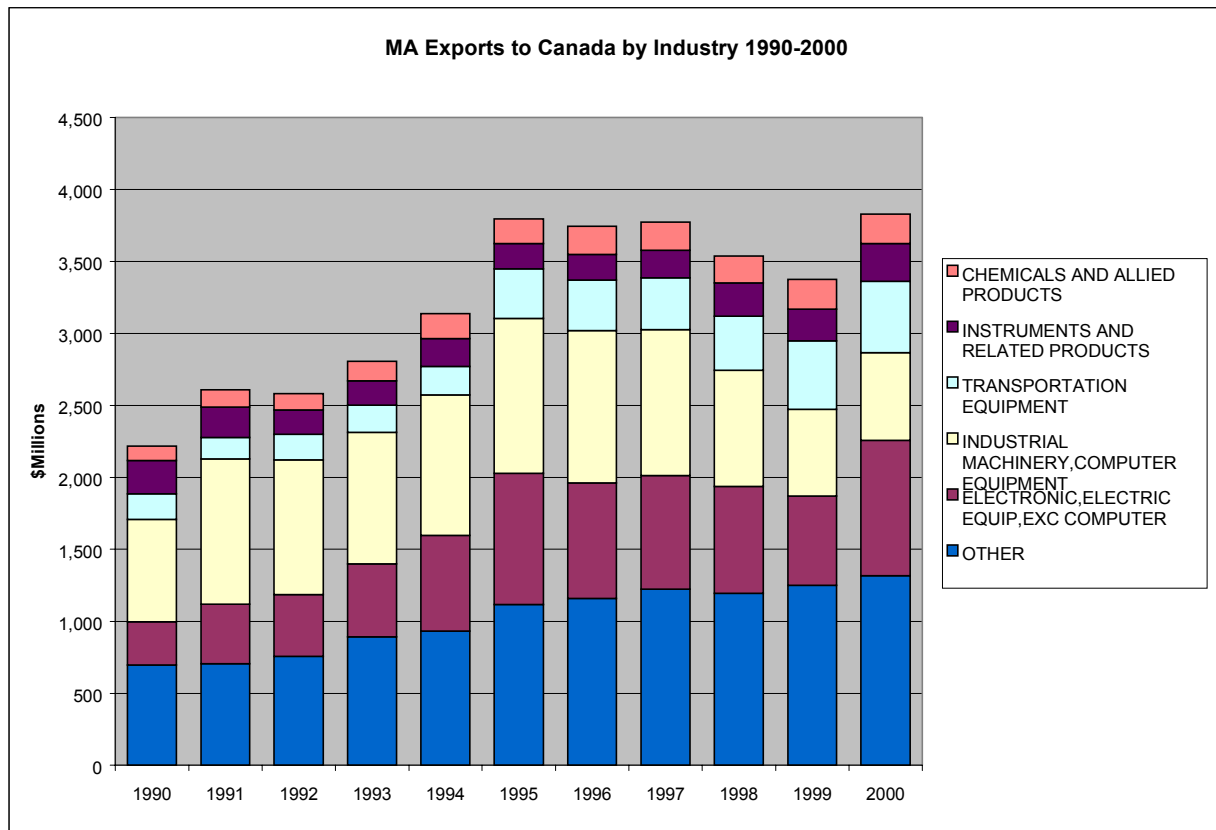
Netherlands

Massachusetts exports to Netherlands increased 8.5% to \$1.3 billion in 2000. Massachusetts growth in sales to Netherlands dropped below the national pace from 1994-1998, but exceeded the national rate by 1999 and 2000 thanks to huge increases in electronics and instruments exports. Shipments of paper and chemicals, MA's next largest exports to Netherlands, expanded very rapidly after mid-decade. In the year 2000 MA exports to Netherlands were comprised of 38% electronics, 33% instruments, 9% machinery and computers, and 20% all other industries. The largest annual increases by value occurred in electronics, instruments, and paper. Used and second-hand merchandise, including paintings, grew 765% and food products, including non-alcoholic beverages nesoi (non-concentrated, vitamin fortified fruit juice) and prepared fruit nesoi (possibly dried cranberries) grew 262%.

Parts of electrical apparatus for line telephony was in Netherlands, as in Germany, Massachusetts' leading and largest growth commodity shipped in 2000. The next largest increases occurred in medical needles nesoi and catheters, photo film without sprocket holes, and paper not over 10% weight of fibers obtained by mechanical process nesoi. Massachusetts is the leading exporter of, and Netherlands is Massachusetts primary market for, two varieties of this specialty paper of mechanical fibers not over 10% weight. Hormones, computer parts, parts and accessories for still photo cameras, and non-cellular, non-reinforced plastic plates and sheets of polyesters sustained Massachusetts' largest decreases in shipments to Netherlands.

Massachusetts Exports to Canada by Industry 1999-2000
Leading Industries by \$Value, Growth, Loss of Shipments

RANK TOP 20 INDUSTRIES		1999	2000	%98-99	%99-00	\$incr 99-00	%US
TOTAL ALL INDUSTRIES		3,376,074,785	3,829,476,382	-4.57	13.43	453,401,597	2.17
1	ELECTRONIC,ELECTRIC EQUIP,EXC COMPUTER	620,476,981	940,736,627	-16.33	51.62	320,259,646	3.87
2	INDUSTRIAL MACHINERY,COMPUTER EQUIPMENT	603,079,932	608,638,721	-25.40	0.92	5,558,789	2.07
3	TRANSPORTATION EQUIPMENT	475,375,993	494,666,682	26.75	4.06	19,290,689	1.21
4	INSTRUMENTS AND RELATED PRODUCTS	221,084,463	263,913,798	-3.98	19.37	42,829,335	3.68
5	CHEMICALS AND ALLIED PRODUCTS	206,540,060	204,489,555	10.08	-0.99	-2,050,505	1.32
6	PAPER AND ALLIED PRODUCTS	166,391,923	190,201,824	-2.71	14.31	23,809,901	4.57
7	FABRICATED METAL PRODUCTS	172,392,922	179,598,868	-6.89	4.18	7,205,946	1.67
8	RUBBER AND MISC. PLASTICS PRODUCTS	109,967,968	132,637,220	14.21	20.61	22,669,252	2.25
9	MISC. MANUFACTURING INDUSTRIES	108,629,532	116,584,667	37.86	7.32	7,955,135	5.13
10	TEXTILE MILL PRODUCTS	101,180,297	105,796,784	-14.78	4.56	4,616,487	4.98
11	PRIMARY METAL INDUSTRIES	88,554,960	102,798,909	-6.00	16.08	14,243,949	1.47
12	FOOD AND KINDRED PRODUCTS	77,109,687	80,302,210	2.83	4.14	3,192,523	1.53
13	FISHING, HUNTING, AND TRAPPING	59,113,898	63,859,854	12.40	8.03	4,745,956	11.40
14	SPECIAL CLASSIFICATION PROVISIONS, NSPF	78,131,932	62,999,302	726.14	-19.37	-15,132,630	3.71
15	CANADIAN, NON-CANADIAN GOODS RET'ND TO CAN	36,050,304	52,962,116	-23.35	46.91	16,911,812	2.78
16	SCRAP AND WASTE	44,043,957	47,178,425	-3.14	7.12	3,134,468	4.25
17	PRINTING AND PUBLISHING	73,496,151	45,405,271	0.98	-38.22	-28,090,880	2.07
18	FURNITURE AND FIXTURES	37,146,364	35,366,148	27.67	-4.79	-1,780,216	2.95
19	STONE, CLAY, AND GLASS PRODUCTS	28,869,429	25,821,932	7.92	-10.56	-3,047,497	0.93
20	LUMBER AND WOOD PRODUCTS	16,694,511	18,244,096	21.25	9.28	1,549,585	0.91
RANK TOP 10 GROWTH INDUSTRIES		1999	2000	%98-99	%99-00	\$incr 99-00	%US
1	ELECTRONIC,ELECTRIC EQUIP,EXC COMPUTER	620,476,981	940,736,627	-16.33	51.62	320,259,646	3.87
2	INSTRUMENTS AND RELATED PRODUCTS	221,084,463	263,913,798	-3.98	19.37	42,829,335	3.68
3	PAPER AND ALLIED PRODUCTS	166,391,923	190,201,824	-2.71	14.31	23,809,901	4.57
4	RUBBER AND MISC. PLASTICS PRODUCTS	109,967,968	132,637,220	14.21	20.61	22,669,252	2.25
5	TRANSPORTATION EQUIPMENT	475,375,993	494,666,682	26.75	4.06	19,290,689	1.21
6	CANADIAN, NON-CANADIAN GOODS RET'ND TO CAN	36,050,304	52,962,116	-23.35	46.91	16,911,812	2.78
7	PRIMARY METAL INDUSTRIES	88,554,960	102,798,909	-6.00	16.08	14,243,949	1.47
8	MISC. MANUFACTURING INDUSTRIES	108,629,532	116,584,667	37.86	7.32	7,955,135	5.13
9	FABRICATED METAL PRODUCTS	172,392,922	179,598,868	-6.89	4.18	7,205,946	1.67
10	INDUSTRIAL MACHINERY,COMPUTER EQUIPMENT	603,079,932	608,638,721	-25.40	0.92	5,558,789	2.07
RANK TOP 10 LOSSES BY INDUSTRY		1999	2000	%98-99	%99-00	\$incr 99-00	%US
1	PRINTING AND PUBLISHING	73,496,151	45,405,271	0.98	-38.22	-28,090,880	2.07
2	SPECIAL CLASSIFICATION PROVISIONS, NSPF	78,131,932	62,999,302	726.14	-19.37	-15,132,630	3.71
3	STONE, CLAY, AND GLASS PRODUCTS	28,869,429	25,821,932	7.92	-10.56	-3,047,497	0.93
4	CHEMICALS AND ALLIED PRODUCTS	206,540,060	204,489,555	10.08	-0.99	-2,050,505	1.32
5	FURNITURE AND FIXTURES	37,146,364	35,366,148	27.67	-4.79	-1,780,216	2.95
6	APPAREL AND OTHER TEXTILE PRODUCTS	12,413,569	11,180,083	-40.20	-9.94	-1,233,486	0.87
7	AGRICULTURAL PRODUCTION-LIVESTOCK	2,513,379	1,764,334	-35.04	-29.80	-749,045	0.47
8	FORESTRY	2,370,276	2,028,625	36.46	-14.41	-341,651	4.02
9	USED OR SECOND-HAND MERCHANDISE	4,559,805	4,390,199	7.59	-3.72	-169,606	2.22
10	BITUMINOUS COAL & LIGNITE MINING	27,283	4,053	411.11	-85.14	-23,230	0.00



MA Export Industries to Canada by Leading Commodity Components
Top 10 Industries Sorted by \$Value 2000

SIC HS 6	TOP 10 INDUSTRIES	1999	2000	INCR 99-00	%INCR	% OF US
ELECTRONIC,ELECTRIC EQUIP,EXC COMPUTER						
36 854213	METAL OXIDE SEMICONDUCTORS(MOS),MONO DIGITAL INTEG	104,901,679	168,444,120	63,542,441	60.57	3.81
36 854230	ELECTRONIC MONOLITHIC INTEGRATED CIRCUIT,N.E.S.O.I	65,614,091	88,150,406	22,536,315	34.35	15.64
36 850440	STATIC CONVERTERS; ADP POWER SUPPLIES	42,274,159	58,447,669	16,173,510	38.26	10.44
INDUSTRIAL MACHINERY,COMPUTER EQUIPMENT						
35 841112*	TURBOJETS OF A THRUST EXCEEDING 25 KN	368,524,647	367,132,533	-1,392,114	-0.38	60.33
35 847330	PARTS & ACCESSORIES FOR ADP MACHINES & UNITS	96,982,821	102,410,648	5,427,827	5.60	3.59
35 847141	DIGITAL ADP MACH,WITH CP UNIT,INPUT,OUTPUT, NESOI	54,404,866	87,465,077	33,060,211	60.77	33.27
TRANSPORTATION EQUIPMENT						
37 841112*	TURBOJETS OF A THRUST EXCEEDING 25 KN	368,524,647	367,132,533	-1,392,114	-0.38	60.33
37 841191*	TURBOJET AND TURBOPROLLER PARTS	37,931,083	41,436,635	3,505,552	9.24	6.02
37 880330	PARTS OF AIRPLANES OR HELICOPTERS, NESOI	20,376,548	14,746,767	-5,629,781	-27.63	1.15
INSTRUMENTS AND RELATED PRODUCTS						
38 901890	INSTR & APPL F MEDICAL SURGICAL DENTAL VET, NESOI	19,381,720	23,043,166	3,661,446	18.89	6.25
38 370120	INSTANT PRINT FILM IN THE FLAT	18,629,817	20,690,894	2,061,077	11.06	97.50
38 852990*	PTS,EX ANTENNA,FOR TRNSMSSN,RDR,RADIO,TV,ETC NESOI	5,379,924	16,178,818	10,798,894	200.73	2.74
CHEMICALS AND ALLIED PRODUCTS						
28 330710	PRE-SHAVE, SHAVING OR AFTER-SHAVE PREPARATIONS	16,399,821	16,044,685	-355,136	-2.17	57.23
28 330720	PERSONAL DEODORANTS AND ANTIPERSPIRANTS	17,646,072	15,577,618	-2,068,454	-11.72	34.31
28 300490	MEDICAMENTS NESOI, MEASURED DOSES, RETAIL PK NESOI	8,902,841	10,741,405	1,838,564	20.65	0.82
PAPER AND ALLIED PRODUCTS						
26 481190	PAPER, PAPERBD, CELLULOSE WADD ETC, COAT ETC NESOI	21,658,707	25,331,962	3,673,255	16.96	20.54
26 480560	PAPER AND PAPERBOARD, NESOI, NOT OVER 150 G/M2, UC	21,192,725	22,365,607	1,172,882	5.53	26.55
26 391990	PLATES, SHEETS, FILM ETC, PLASTICS, SELF-ADH NESOI	11,765,589	14,509,205	2,743,616	23.32	9.24
FABRICATED METAL PRODUCTS						
34 821210	RAZORS	24,884,642	25,892,723	1,008,081	4.05	76.15
34 821220	SAFETY RAZOR BLADES AND BLADE BLANKS IN STRIPS	34,800,324	25,259,530	-9,540,794	-27.42	86.91
34 848180	TAPS COCKS ETC F PIPE VAT INC THERMO CONTROL NESOI	11,366,050	14,271,146	2,905,096	25.56	1.71
RUBBER AND MISC. PLASTICS PRODUCTS						
30 392690*	ARTICLES OF PLASTICS, NESOI	14,773,269	16,765,163	1,991,894	13.48	2.58
30 392190	PLATES, SHEETS, FILM ETC, PLASTIC NESOI NCEL NESOI	7,886,665	10,722,832	2,836,167	35.96	6.47
30 640411	FOOTWEAR TEX UP RUBPLAS SOL SPORT SHOES	4,690,246	9,082,076	4,391,830	93.64	68.61
MISC. MANUFACTURING INDUSTRIES						
39 950490	GAME MACH EX COIN; BD GAME; MAH-JONG; DMNOES; DICE	22,110,580	21,265,257	-845,323	-3.82	32.96
39 950632	GOLF BALLS	18,984,455	17,612,728	-1,371,727	-7.23	49.73
39 392690*	ARTICLES OF PLASTICS, NESOI	14,773,269	16,765,163	1,991,894	13.48	2.58
TEXTILE MILL PRODUCTS						
22 590700	TEXTL FABRC,COATD,ETC,THEATRCL SCENERY,BACK-CLOTHS	16,023,281	13,590,922	-2,432,359	-15.18	37.66
22 600122	LOOPED PILE FABRICS MAN-MADE FIBER,KNIT OR CROCHET	11,142,026	12,425,583	1,283,557	11.52	64.84
22 600192	OTH PILE FABRICS,MAN-MADE FIBERS,KNITTED/CROCHETED	18,468,983	12,080,281	-6,388,702	-34.59	35.67

*This 6-digit HS commodity is comprised of 10-digit commodities that map to more than one 2-digit SIC.

MA Export Industries to Canada by Leading Commodity Components Top 5 Growth and Loss Industries 1999-2000

SIC	HS 6	TOP 5 GROWTH INDUSTRIES	1999	2000	INCR 99-00	%INCR	% OF US
ELECTRONIC,ELECTRIC EQUIP,EXC COMPUTER							
36	854213	METAL OXIDE SEMICONDUCTORS(MOS),MONO DIGITAL INTEG	104,901,679	168,444,120	63,542,441	60.57	3.81
36	854150	SEMICNDCTR DVICE EX PHOTOSENSITIVE/PHOTOVOLTAIC CL	5,250,264	34,553,340	29,303,076	558.13	24.07
36	853221	TANTALUM ELECTROLYTIC FIXED CAPACITORS	3,842,961	31,507,275	27,664,314	719.87	31.45
INSTRUMENTS AND RELATED PRODUCTS							
38	852990*	PTS,EX ANTENNA,FOR TRNSMSSN,RDR,RADIO,TV,ETC NESOI	5,379,924	16,178,818	10,798,894	200.73	2.74
38	903090	PTS OF INST F MEAS ELECT QUAT ALPHA BETA INZNG RDT	4,223,636	10,051,029	5,827,393	137.97	8.94
38	900640	INSTANT PRINT CAMERAS	4,421,793	9,171,001	4,749,208	107.40	89.71
PAPER AND ALLIED PRODUCTS							
26	481190	PAPER, PAPERBD, CELLULOSE WADD ETC, COAT ETC NESOI	21,658,707	25,331,962	3,673,255	16.96	20.54
26	482190	PAPER AND PAPERBOARD LABELS, ALL KINDS, NOT PRINT	522,133	3,463,696	2,941,563	563.37	11.57
26	391990	PLATES, SHEETS, FILM ETC, PLASTICS, SELF-ADH NESOI	11,765,589	14,509,205	2,743,616	23.32	9.24
RUBBER AND MISC. PLASTICS PRODUCTS							
30	848410	GASKETS, METAL LAYERS, OR OTHER MATL, MECH SEALS	1,710,297	8,873,058	7,162,761	418.80	11.65
30	640411	FOOTWEAR TEX UP RUBPLAS SOL SPORT SHOES	4,690,246	9,082,076	4,391,830	93.64	68.61
30	392190	PLATES, SHEETS, FILM ETC, PLASTIC NESOI NCEL NESOI	7,886,665	10,722,832	2,836,167	35.96	6.47
TRANSPORTATION EQUIPMENT							
37	841111*	TURBOJETS OF A THRUST NOT EXCEEDING 25 KN	0	13,077,028	13,077,028	NA	44.81
37	880230	AIPPLANE & A/C UNLADEN WGHT > 2000, NOV 15000 KG	0	5,015,242	5,015,242	NA	1.02
37	841191*	TURBOJET AND TURBOPROLLER PARTS	37,931,083	41,436,635	3,505,552	9.24	6.02
SIC	HS 6	TOP 5 INDUSTRY LOSSES	1999	2000	INCR 99-00	%INCR	% OF US
PRINTING AND PUBLISHING							
27	490199	PRINTED BOOKS, BROCHURES, ETC., NESOI	46,489,038	16,538,965	-29,950,073	-64.42	2.13
27	482030	BINDERS,FOLDERS EXC BOOK COV FILE CVRS, PPR/PPRBRD	13,068,515	10,957,519	-2,110,996	-16.15	26.66
27	482010	REGISTERS/ACCT BKS/NOTEBOOKS/LETTER PAD ETC PPR/PBRD	621,931	282,221	-339,710	-54.62	0.68
SPECIAL CLASSIFICATION PROVISIONS, NSPF							
99	852491	OHTR RECORDED MEDIA,NESOI,FOR REPROD OTHR THAN S/I	29,532,098	12,649,975	-16,882,123	-57.17	5.00
99	852431	LASER DISCS,FOR REPRODUCING OTHER THAN SOUND/IMAGE	28,056,660	23,257,735	-4,798,925	-17.10	5.67
99	852499*	RECORDED MEDIA FOR REPRODUCING SND OR IMAGE, NESOI	2,923,385	1,650,634	-1,272,751	-43.54	3.11
STONE, CLAY, AND GLASS PRODUCTS							
32	680422	OTH MILLSTNS GRINSTNS A GRNDNG WHEELS AGGL ABRVS	12,982,197	4,748,419	-8,233,778	-63.42	14.97
32	701091	GLASS CONTAINERS FOR PACKING ETC, OVER 1 LTR NESOI	1,954,723	410,748	-1,543,975	-78.99	2.01
32	690919	CERAMIC WARES FOR LABORATORY ETC USE NESOI	654,115	61,461	-592,654	-90.60	0.27
CHEMICALS AND ALLIED PRODUCTS							
28	390319	POLYSTYRENE NESOI, PR FMS	12,712,095	6,401,708	-6,310,387	-49.64	5.30
28	390422	POLYMERS NESOI OF POLYVINYL CHLORIDE, PLASTICIZED	6,613,832	1,469,514	-5,144,318	-77.78	2.46
28	382200	COMPOSITE DIAGNOSTIC/LAB REAGENTS, EXC PHARMACEUT	10,159,641	7,515,163	-2,644,478	-26.03	4.22
FURNITURE AND FIXTURES							
25	940370	FURNITURE OF PLASTICS, NESOI	21,029,781	19,169,364	-1,860,417	-8.85	30.01
25	940330	WOODEN OFFICE FURNITURE, EXCEPT SEATS	322,783	32,449	-290,334	-89.95	0.07
25	761699*	ARTICLES OF ALUMINUM, N.E.S.O.I.	1,245,601	1,082,074	-163,527	-13.13	0.87

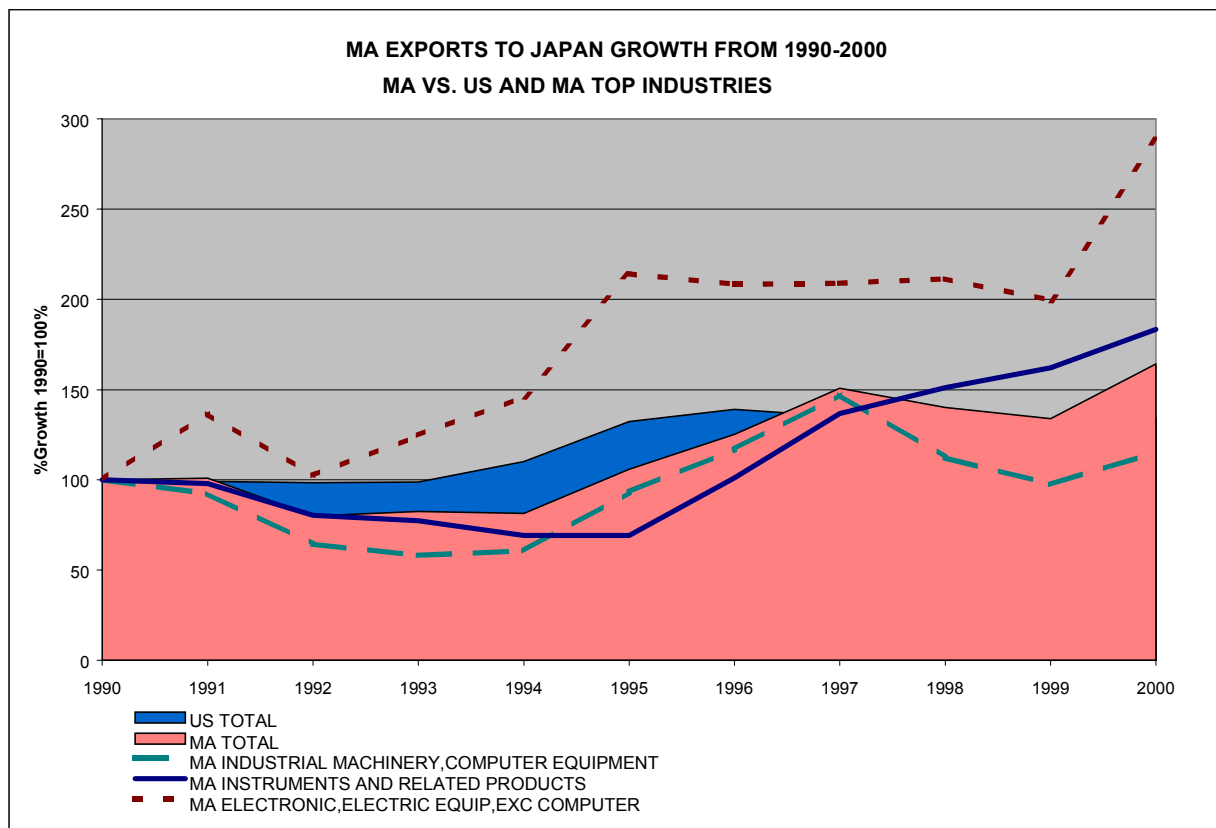
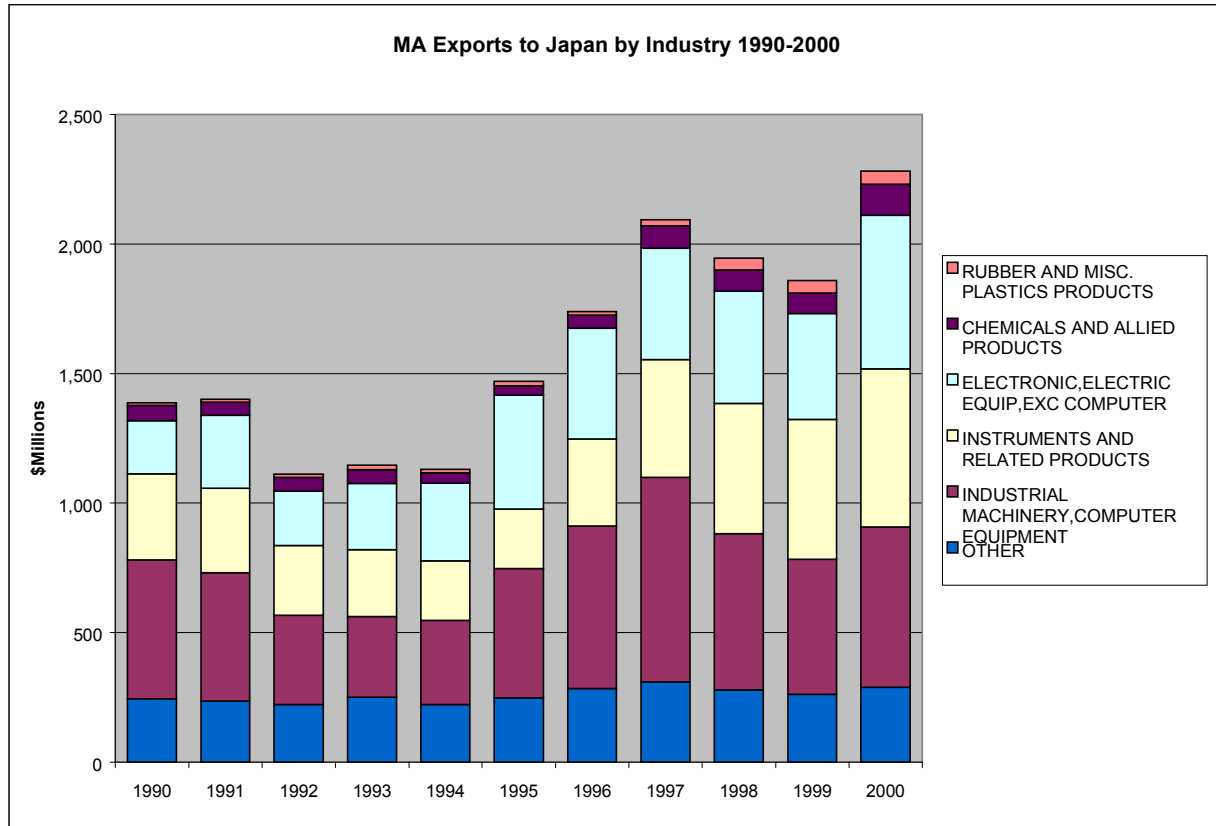
*This 6-digit HS commodity is comprised of 10-digit commodities that map to more than one 2-digit SIC.

MA Exports to Canada by Commodity
Leading Commodities by \$Value, Growth, Loss of Shipments 1999-2000

RANK	HS 6	TOP 20 COMMODITIES	1999	2000	INCR 99-00	%INCR	%US
1	841112	TURBOJETS OF A THRUST EXCEEDING 25 KN	368,524,647	367,132,533	-1,392,114	-0.38	60.33
2	854213	METAL OXIDE SEMICONDUCTORS(MOS),MONO DIGITAL INTEG	104,901,679	168,444,120	63,542,441	60.57	3.81
3	847330	PARTS & ACCESSORIES FOR ADP MACHINES & UNITS	96,982,821	102,410,648	5,427,827	5.60	3.59
4	854230	ELECTRONIC MONOLITHIC INTEGRATED CIRCUIT,N.E.S.O.I	65,614,091	88,150,406	22,536,315	34.35	15.64
5	847141	DIGITAL ADP MACH,WITH CP UNIT,INPUT,OUTPUT, NESOI	54,404,866	87,465,077	33,060,211	60.77	33.27
6	847180	AUTOMATIC DATA PROCESSING UNITS, N.E.S.O.I.	69,313,508	59,118,562	-10,194,946	-14.71	6.86
7	850440	STATIC CONVERTERS; ADP POWER SUPPLIES	42,274,159	58,447,669	16,173,510	38.26	10.44
8	987000	SPECIAL CANADIAN CLASSIFICATIONS, NESOI	33,706,900	50,363,036	16,656,136	49.41	2.64
9	841191	TURBOJET AND TURBOPROLLER PARTS	37,931,083	41,436,635	3,505,552	9.24	6.02
10	853650	ELECT SWITCHES F VOLTAGE NOT OVER 1000 V, NESOI	34,125,773	39,978,553	5,852,780	17.15	6.69
11	853400	PRINTED CIRCUITS	21,963,890	37,909,748	15,945,858	72.60	4.35
12	847149	DIGITAL ADP MAC & UNITS,ENTERED AS SYSTEMS, NESOI	29,020,482	34,910,780	5,890,298	20.30	4.55
13	854150	SEMICNDCTR DVICE EX PHOTSENSITIVE/PHOTOVOLTAIC CL	5,250,264	34,553,340	29,303,076	558.13	24.07
14	851790	PT ELECT APPR F LINE TELEPHONY OR TELEGRAPHY ETC.	12,048,589	34,218,960	22,170,371	184.01	2.85
15	852510	TRANSMISSION APPARATUS FOR RADIO OR TELEVISION	20,235,218	32,849,362	12,614,144	62.34	11.81
16	853221	TANTALUM ELECTROLYTIC FIXED CAPACITORS	3,842,961	31,507,275	27,664,314	719.87	31.45
17	988000	EST. LOW VALUE SHP; CANADIAN LOW VALUE AND NIK	25,562,644	26,202,043	639,399	2.50	1.32
18	821210	RAZORS	24,884,642	25,892,723	1,008,081	4.05	76.15
19	847150	DIGITAL PROCESSING UNITS, N.E.S.O.I.	23,711,497	25,796,643	2,085,146	8.79	1.64
20	851750	TELECOMM APPRTUS,CARRIER-CUR & DIGITAL SYSTM,NESOI	37,000,435	25,794,042	-11,206,393	-30.29	2.50
RANK	HS 6	TOP 10 COMMODITY GAINS	1999	2000	INCR 99-00	%INCR	%US
1	854213	METAL OXIDE SEMICONDUCTORS(MOS),MONO DIGITAL INTEG	104,901,679	168,444,120	63,542,441	60.57	3.81
2	847141	DIGITAL ADP MACH,WITH CP UNIT,INPUT,OUTPUT, NESOI	54,404,866	87,465,077	33,060,211	60.77	33.27
3	854150	SEMICNDCTR DVICE EX PHOTSENSITIVE/PHOTOVOLTAIC CL	5,250,264	34,553,340	29,303,076	558.13	24.07
4	853221	TANTALUM ELECTROLYTIC FIXED CAPACITORS	3,842,961	31,507,275	27,664,314	719.87	31.45
5	854230	ELECTRONIC MONOLITHIC INTEGRATED CIRCUIT,N.E.S.O.I	65,614,091	88,150,406	22,536,315	34.35	15.64
6	851790	PT ELECT APPR F LINE TELEPHONY OR TELEGRAPHY ETC.	12,048,589	34,218,960	22,170,371	184.01	2.85
7	987000	SPECIAL CANADIAN CLASSIFICATIONS, NESOI	33,706,900	50,363,036	16,656,136	49.41	2.64
8	850440	STATIC CONVERTERS; ADP POWER SUPPLIES	42,274,159	58,447,669	16,173,510	38.26	10.44
9	853400	PRINTED CIRCUITS	21,963,890	37,909,748	15,945,858	72.60	4.35
10	854250	ELECTRONIC MICROASSEMBLIES	10,865,577	25,009,699	14,144,122	130.17	7.98
	HS 6	TOP 10 COMMODITY LOSSES	1999	2000	INCR 99-00	%INCR	%US
1	490199	PRINTED BOOKS, BROCHURES, ETC., NESOI	46,489,038	16,538,965	-29,950,073	-64.42	2.13
2	847170	AUTOMATIC DATA PROCESSING STORAGE UNITS, N.E.S.O.I	39,134,803	16,090,226	-23,044,577	-58.89	2.32
3	852491	OHTR RECORDED MEDIA,NESOI,FOR REPROD OTHR THAN S/I	29,532,098	12,649,975	-16,882,123	-57.17	5.00
4	851750	TELECOMM APPRTUS,CARRIER-CUR & DIGITAL SYSTM,NESOI	37,000,435	25,794,042	-11,206,393	-30.29	2.50
5	847180	AUTOMATIC DATA PROCESSING UNITS, N.E.S.O.I.	69,313,508	59,118,562	-10,194,946	-14.71	6.86
6	821220	SAFETY RAZOR BLADES AND BLADE BLANKS IN STRIPS	34,800,324	25,259,530	-9,540,794	-27.42	86.91
7	710812	GOLD, NONMONETARY, UNWROUGHT NESOI	13,988,923	4,465,507	-9,523,416	-68.08	2.43
8	680422	OTH MILLSTNS GRINSTNS A GRNDNG WHEELS AGGL ABRSVS	12,982,197	4,748,419	-8,233,778	-63.42	14.97
9	845590	PARTS FOR METAL ROLLING MILLS EXC ROLLS FOR ROL MI	9,812,468	2,525,587	-7,286,881	-74.26	13.42
10	600192	OTH PILE FABRICS,MAN-MADE FIBERS,KNITTED/CROCHETED	18,468,983	12,080,281	-6,388,702	-34.59	35.67

Massachusetts Exports to Japan by Industry 1999-2000
Leading Industries by \$Value, Growth, Loss of Shipments

RANK TOP 20 INDUSTRIES		1999	2000	%98-99	%99-00	\$Incr 99-00	%US
TOTAL ALL INDUSTRIES		1,858,795,221	2,281,393,868	-4.46	22.74	422,598,647	3.50
1	INDUSTRIAL MACHINERY,COMPUTER EQUIPMENT	522,086,014	619,061,223	-13.27	18.57	96,975,209	5.74
2	INSTRUMENTS AND RELATED PRODUCTS	539,801,649	610,420,719	7.40	13.08	70,619,070	9.43
3	ELECTRONIC,ELECTRIC EQUIP,EXC COMPUTER	409,036,568	592,008,101	-5.68	44.73	182,971,533	6.03
4	CHEMICALS AND ALLIED PRODUCTS	78,992,652	120,477,088	-3.16	52.52	41,484,436	2.03
5	RUBBER AND MISC. PLASTICS PRODUCTS	47,299,701	49,713,674	3.88	5.10	2,413,973	5.47
6	FABRICATED METAL PRODUCTS	34,974,148	49,418,953	-38.57	41.30	14,444,805	5.24
7	FISHING, HUNTING, AND TRAPPING	41,925,231	37,426,326	-2.45	-10.73	-4,498,905	3.13
8	PRIMARY METAL INDUSTRIES	25,385,149	36,521,645	35.83	43.87	11,136,496	3.04
9	TRANSPORTATION EQUIPMENT	36,218,724	32,094,718	25.64	-11.39	-4,124,006	0.45
10	SPECIAL CLASSIFICATION PROVISIONS, NSPF	26,112,933	30,956,937	336.97	18.55	4,844,004	3.99
11	STONE, CLAY, AND GLASS PRODUCTS	10,356,947	29,362,787	37.64	183.51	19,005,840	3.48
12	MISC. MANUFACTURING INDUSTRIES	19,830,462	16,862,221	-51.57	-14.97	-2,968,241	1.44
13	PAPER AND ALLIED PRODUCTS	9,989,635	13,465,472	-7.14	34.79	3,475,837	0.99
14	LEATHER AND LEATHER PRODUCTS	19,158,737	11,096,673	68.71	-42.08	-8,062,064	4.11
15	PRINTING AND PUBLISHING	8,867,610	6,285,088	-64.64	-29.12	-2,582,522	2.43
16	TEXTILE MILL PRODUCTS	6,308,864	5,660,666	-16.85	-10.27	-648,198	2.67
17	CHARITY,MILITARY NIK,SHIPMENTS<10K NIK	3,710,391	5,081,903	-14.88	36.96	1,371,512	2.34
18	FOOD AND KINDRED PRODUCTS	2,017,908	4,488,920	-34.51	122.45	2,471,012	0.08
19	APPAREL AND OTHER TEXTILE PRODUCTS	8,087,003	4,407,298	-4.77	-45.50	-3,679,705	0.91
20	USED OR SECOND-HAND MERCHANDISE	2,445,206	2,503,084	-26.14	2.37	57,878	0.72
RANK TOP 10 GROWTH INDUSTRIES		1999	2000	%98-99	%99-00	\$Incr 99-00	%US
1	ELECTRONIC,ELECTRIC EQUIP,EXC COMPUTER	409,036,568	592,008,101	-5.68	44.73	182,971,533	6.03
2	INDUSTRIAL MACHINERY,COMPUTER EQUIPMENT	522,086,014	619,061,223	-13.27	18.57	96,975,209	5.74
3	INSTRUMENTS AND RELATED PRODUCTS	539,801,649	610,420,719	7.40	13.08	70,619,070	9.43
4	CHEMICALS AND ALLIED PRODUCTS	78,992,652	120,477,088	-3.16	52.52	41,484,436	2.03
5	STONE, CLAY, AND GLASS PRODUCTS	10,356,947	29,362,787	37.64	183.51	19,005,840	3.48
6	FABRICATED METAL PRODUCTS	34,974,148	49,418,953	-38.57	41.30	14,444,805	5.24
7	PRIMARY METAL INDUSTRIES	25,385,149	36,521,645	35.83	43.87	11,136,496	3.04
8	SPECIAL CLASSIFICATION PROVISIONS, NSPF	26,112,933	30,956,937	336.97	18.55	4,844,004	3.99
9	PAPER AND ALLIED PRODUCTS	9,989,635	13,465,472	-7.14	34.79	3,475,837	0.99
10	FOOD AND KINDRED PRODUCTS	2,017,908	4,488,920	-34.51	122.45	2,471,012	0.08
RANK TOP 10 LOSSES BY INDUSTRY		1999	2000	%98-99	%99-00	\$Incr 99-00	%US
1	LEATHER AND LEATHER PRODUCTS	19,158,737	11,096,673	68.71	-42.08	-8,062,064	4.11
2	FISHING, HUNTING, AND TRAPPING	41,925,231	37,426,326	-2.45	-10.73	-4,498,905	3.13
3	TRANSPORTATION EQUIPMENT	36,218,724	32,094,718	25.64	-11.39	-4,124,006	0.45
4	APPAREL AND OTHER TEXTILE PRODUCTS	8,087,003	4,407,298	-4.77	-45.50	-3,679,705	0.91
5	MISC. MANUFACTURING INDUSTRIES	19,830,462	16,862,221	-51.57	-14.97	-2,968,241	1.44
6	PRINTING AND PUBLISHING	8,867,610	6,285,088	-64.64	-29.12	-2,582,522	2.43
7	FURNITURE AND FIXTURES	2,936,702	1,130,384	264.62	-61.51	-1,806,318	0.76
8	LUMBER AND WOOD PRODUCTS	2,334,984	1,508,652	40.72	-35.39	-826,332	0.10
9	TEXTILE MILL PRODUCTS	6,308,864	5,660,666	-16.85	-10.27	-648,198	2.67
10	FORESTRY	323,687	93,416	56.40	-71.14	-230,271	0.81



**MA Export Industries to Japan by Leading Commodity Components
Top 10 Industries Sorted by \$Value 2000**

SIC HS 6	TOP 10 INDUSTRIES	1999	2000	INCR 99-00	%INCR	% OF US
INDUSTRIAL MACHINERY, COMPUTER EQUIPMENT						
35 847330	PARTS & ACCESSORIES FOR ADP MACHINES & UNITS	213,162,353	122,827,028	-90,335,325	-42.38	5.30
35 847130	PORT DIGTL AUTOMATIC DATA PROCESS MACH NOT > 10 KG	40,650,655	79,454,750	38,804,095	95.46	60.94
35 854311	PARTICLE ACCELERATORS, ION IMPLANTERS FOR SMCNDCTRS	10,456,899	39,016,315	28,559,416	273.12	91.39
INSTRUMENTS AND RELATED PRODUCTS						
38 901839	MED NEEDLES, NESOI, CATHERERS ETC AND PARTS ETC	154,243,489	143,388,093	-10,855,396	-7.04	34.52
38 903089	INST, MEASURING/CHECKING ELECTRICAL QUANTITIES, NESOI	29,072,973	42,304,251	13,231,278	45.51	23.89
38 852990*	PTS, EX ANTENNA, FOR TRNSMSSN, RDR, RADIO, TV, ETC NESOI	17,493,378	39,603,025	22,109,647	126.39	6.20
ELECTRONIC, ELECTRIC EQUIP, EXC COMPUTER						
36 851790	PT ELECT APPR F LINE TELEPHONY OR TELEGRAPHY ETC.	64,350,661	140,929,035	76,578,374	119.00	27.96
36 854230	ELECTRONIC MONOLITHIC INTEGRATED CIRCUIT, N.E.S.O.I	39,551,633	55,114,701	15,563,068	39.35	8.74
36 851780	ELECTRIC TELEPHONIC & TELEGRAPHIC APPARATUS, NESOI	38,702,530	48,308,867	9,606,337	24.82	83.01
CHEMICALS AND ALLIED PRODUCTS						
28 382200	COMPOSITE DIAGNOSTIC/LAB REAGENTS, EXC PHARMACEUT	13,602,504	29,026,241	15,423,737	113.39	8.17
28 300490	MEDICAMENTS NESOI, MEASURED DOSES, RETAIL PK NESOI	18,057,225	22,960,438	4,903,213	27.15	11.34
28 300210	ANTISERA AND BLOOD FRACTIONS, IMMUN PRODUCTS	8,981,488	12,797,209	3,815,721	42.48	5.97
RUBBER AND MISC. PLASTICS PRODUCTS						
30 392690*	ARTICLES OF PLASTICS, NESOI	29,964,208	32,750,853	2,786,645	9.30	20.45
30 392062	PLATES ETC, NONCELL ETC, POLYETHYLENE TEREPHTHALATE	1,236,825	1,930,785	693,960	56.11	6.42
30 392069	PLATES ETC, NONCELL ETC, NO REIN, POLYESTERS NESOI	1,648,136	1,852,992	204,856	12.43	13.97
FABRICATED METAL PRODUCTS						
34 930690	BOMB MINES OT AMMNTION PROJCTIONS ETC AND PARTS	8,964,117	13,948,711	4,984,594	55.61	9.98
34 821210	RAZORS	8,421,595	9,006,849	585,254	6.95	99.50
34 848180	TAPS COCKS ETC F PIPE VAT INC THERMO CONTROL NESOI	1,299,720	7,196,113	5,896,393	453.67	13.99
FISHING, HUNTING, AND TRAPPING						
9 30239	TUNAS NESOI, WITH BONES, FRESH OR CHILLED	7,698,041	9,127,216	1,429,175	18.57	76.42
9 30791	MOLLUSCS ETC NESOI, LIVE, FRESH OR CHILLED	13,481,230	9,076,516	-4,404,714	-32.67	12.59
9 30270	FISH LIVERS AND ROES, FRESH OR CHILLED	6,527,649	5,843,884	-683,765	-10.47	41.94
PRIMARY METAL INDUSTRIES						
33 810390	TANTALUM AND ARTICLES THEREOF, NESOI	6,863,751	13,410,652	6,546,901	95.38	65.32
33 810890	TITANIUM AND ARTICLES THEREOF NESOI	7,584,889	6,919,155	-665,734	-8.78	41.12
33 280461	SILICON CONTAIN BY WT NT < 99.99% OF SILICON	1,125,033	2,067,077	942,044	83.73	1.02
TRANSPORTATION EQUIPMENT						
37 841199*	GAS TURBINE PARTS NESOI	15,972,410	20,757,565	4,785,155	29.96	3.85
37 841191*	TURBOJET AND TURBOPROLLER PARTS	14,536,131	13,673,588	-862,543	-5.93	2.86
37 880330	PARTS OF AIRPLANES OR HELICOPTERS, NESOI	2,054,597	5,552,151	3,497,554	170.23	0.30
SPECIAL CLASSIFICATION PROVISIONS, NSPF						
99 980110	VALUE OF REPAIR/ALTER ARTICLES PREVIOUS IMPORTED	11,072,056	9,111,780	-1,960,276	-17.70	2.31
99 852499*	RECORDED MEDIA FOR REPRODUCING SND OR IMAGE, NESOI	7,186,360	7,379,299	192,939	2.68	5.89
99 852491	OHTR RECORDED MEDIA, NESOI, FOR REPROD OTHR THAN S/I	2,509,905	5,925,101	3,415,196	136.07	11.60

*This 6-digit HS commodity is comprised of 10-digit commodities that map to more than one 2-digit SIC.

**MA Export Industries to Japan by Leading Commodity Components
Top 5 Growth and Loss Industries 1999-2000**

SIC	HS 6	TOP 5 GROWTH INDUSTRIES	1999	2000	INCR 99-00	%INCR	% OF US
ELECTRONIC,ELECTRIC EQUIP,EXC COMPUTER							
36	851790	PT ELECT APPR F LINE TELEPHONY OR TELEGRAPHY ETC.	64,350,661	140,929,035	76,578,374	119.00	27.96
36	854390	PT ELEC MACH & APPR W INDIVIDUAL FUNCTIONS, NESOI	13,968,496	38,048,119	24,079,623	172.39	35.07
36	852990*	PTS,EX ANTENNA,FOR TRNSMSSN,RDR,RADIO,TV,ETC NESOI	17,493,378	39,603,025	22,109,647	126.39	6.20
INDUSTRIAL MACHINERY,COMPUTER EQUIPMENT							
35	847130	PORT DIGTL AUTOMATIC DATA PROCESS MACH NOT > 10 KG	40,650,655	79,454,750	38,804,095	95.46	60.94
35	841350	RECIPROCATING POSITIVE DISPLACEMENT PUMPS, NESOI	8,810,843	37,414,717	28,603,874	324.64	75.54
35	854311	PARTICLE ACCELERATORS,ION IMPLANTERS FOR SMCNDCTRS	10,456,899	39,016,315	28,559,416	273.12	91.39
INSTRUMENTS AND RELATED PRODUCTS							
38	903082	INST TO CHECK SEMICONDUCT WAFERS & SUCH THAT RECORD	5,736,642	31,835,949	26,099,307	454.96	24.23
38	852990*	PTS,EX ANTENNA,FOR TRNSMSSN,RDR,RADIO,TV,ETC NESOI	17,493,378	39,603,025	22,109,647	126.39	6.20
38	903089	INST,MEASURING/CHECKING ELECTRICAL QUANTITIES,NESOI	29,072,973	42,304,251	13,231,278	45.51	23.89
CHEMICALS AND ALLIED PRODUCTS							
28	382200	COMPOSITE DIAGNOSTIC/LAB REAGENTS, EXC PHARMACEUT	13,602,504	29,026,241	15,423,737	113.39	8.17
28	300490	MEDICAMENTS NESOI, MEASURED DOSES, RETAIL PK NESOI	18,057,225	22,960,438	4,903,213	27.15	11.34
28	300210	ANTISERA AND BLOOD FRACTIONS, IMMUN PRODUCTS	8,981,488	12,797,209	3,815,721	42.48	5.97
STONE, CLAY, AND GLASS PRODUCTS							
32	690320	OTH REFRAC CERAM GDS NES ALUMINA/SILICA OV 50 PCT	2,841,478	14,305,394	11,463,916	403.45	92.14
32	382490*	PRODUCTS AND RESIDUALS OF CHEMICAL INDUSTRY, NESOI	5,183,332	7,340,691	2,157,359	41.62	9.48
32	701939	GLASS NONWOVEN MATTRESSES, BOARDS ETC NESOI	1,344,066	3,471,752	2,127,686	158.30	44.84
SIC	HS 6	TOP 5 INDUSTRY LOSSES	1999	2000	INCR 99-00	%INCR	% OF US
LEATHER AND LEATHER PRODUCTS							
31	640299*	FOOTWEAR, OUTER SOLE & UPPER RUBBER OR PLAST NESOI	3,722,996	1,130,475	-2,592,521	-69.64	36.77
31	640359	FOOTWEAR, OUTER SOLE & UPPER OF LEATHER NESOI	3,983,408	1,577,155	-2,406,253	-60.41	21.55
31	640319	FOOTWEAR LEA UPPER, SPORTS FOOTWEAR EXC SKI-BOOTS	1,847,008	729,304	-1,117,704	-60.51	4.15
FISHING, HUNTING, AND TRAPPING							
9	30791	MOLLUSCS ETC NESOI, LIVE, FRESH OR CHILLED	13,481,230	9,076,516	-4,404,714	-32.67	12.59
9	30270	FISH LIVERS AND ROES, FRESH OR CHILLED	6,527,649	5,843,884	-683,765	-10.47	41.94
9	30229	FLATFISH NESOI EXCEPT FILLET, LIVER ROE FRESH/CHLD	1,319,832	945,407	-374,425	-28.37	38.14
TRANSPORTATION EQUIPMENT							
37	840910	PARTS FOR AIRCRAFT ENGINES (SP-IGN, ROT OR COMP)	10,883,756	4,140,726	-6,743,030	-61.95	31.03
37	841111*	TURBOJETS OF A THRUST NOT EXCEEDING 25 KN	4,205,000	1,520,969	-2,684,031	-63.83	12.83
37	841122*	TURBOPROPELLERS OF A POWER EXCEEDING 1,100 KW	1,002,054	0	-1,002,054	-100.00	0.00
APPAREL AND OTHER TEXTILE PRODUCTS							
23	620431	W/G SUIT-TYPE JACKETS AND BLAZERS WOOL, NOT KNIT	1,036,256	216,129	-820,127	-79.14	30.43
23	620444	WOMEN'S OR GIRLS' DRESSES ARTIFICIAL FIBERS, N KT	484,565	71,499	-413,066	-85.24	7.08
23	620469	WOMEN'S OR GIRLS' TROUSERS ETC NOT KNIT, TEX NESOI	347,138	20,624	-326,514	-94.06	13.32
MISC. MANUFACTURING INDUSTRIES							
39	950632	GOLF BALLS	6,696,674	3,943,851	-2,752,823	-41.11	21.42
39	950639	GOLF EQUIP EX CLUBS & BALLS; PARTS AND ACCESSORIES	1,495,476	403,910	-1,091,566	-72.99	0.97
39	950631	GOLF CLUBS, COMPLETE	1,844,051	1,519,424	-324,627	-17.60	1.14

*This 6-digit HS commodity is comprised of 10-digit commodities that map to more than one 2-digit SIC.

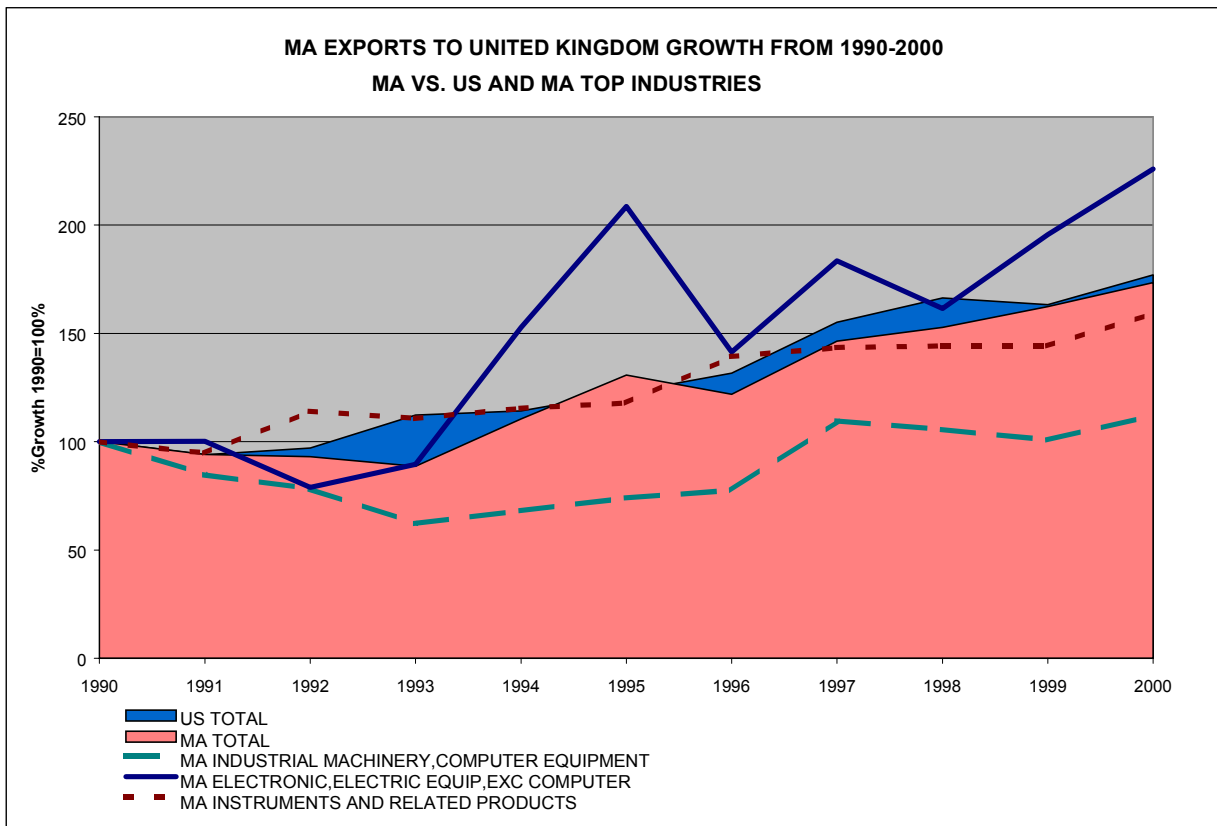
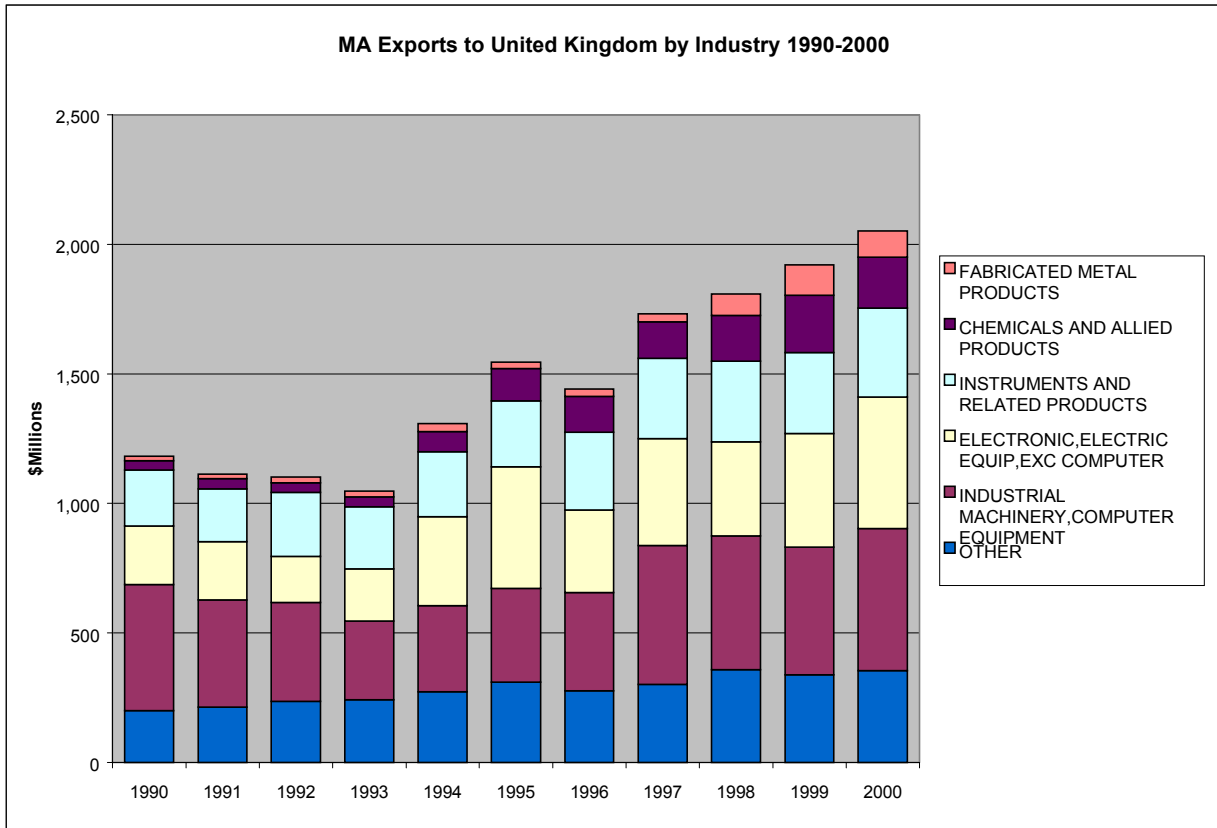
MA Exports to Japan by Commodity
Leading Commodities by \$Value, Growth, Loss of Shipments 1999-2000

RANK	HS 6	TOP 20 COMMODITIES	1999	2000	INCR 99-00	%INCR	%US
1	901839	MED NEEDLES, NESOI, CATHERERS ETC AND PARTS ETC	154,243,489	143,388,093	-10,855,396	-7.04	34.52
2	851790	PT ELECT APPR F LINE TELEPHONY OR TELEGRAPHY ETC.	64,350,661	140,929,035	76,578,374	119.00	27.96
3	847330	PARTS & ACCESSORIES FOR ADP MACHINES & UNITS	213,162,353	122,827,028	-90,335,325	-42.38	5.30
4	847130	PORT DIGTL AUTOMATIC DATA PROCESS MACH NOT > 10 KG	40,650,655	79,454,750	38,804,095	95.46	60.94
5	854230	ELECTRONIC MONOLITHIC INTEGRATED CIRCUIT,N.E.S.O.I	39,551,633	55,114,701	15,563,068	39.35	8.74
6	851780	ELECTRIC TELEPHONIC & TELEGRAPHIC APPARATUS, NESOI	38,702,530	48,308,867	9,606,337	24.82	83.01
7	903089	INST,MEASURING/CHECKING ELECTRICAL QUANTITIE,NESOI	29,072,973	42,304,251	13,231,278	45.51	23.89
8	852990	PTS,EX ANTENNA,FOR TRNSMSSN,RDR,RADIO,TV,ETC NESOI	17,493,378	39,603,025	22,109,647	126.39	6.20
9	854311	PARTICLE ACCELERATORS,ION IMPLANTERS FOR SMCNDCTRS	10,456,899	39,016,315	28,559,416	273.12	91.39
10	854390	PT ELEC MACH & APPR W INDIVIDUAL FUNCTIONS, NESOI	13,968,496	38,048,119	24,079,623	172.39	35.07
11	901890	INSTR & APPL F MEDICAL SURGICAL DENTAL VET, NESOI	47,622,869	37,978,075	-9,644,794	-20.25	8.54
12	841350	RECIPROCATING POSITIVE DISPLACEMENT PUMPS, NESOI	8,810,843	37,414,717	28,603,874	324.64	75.54
13	392690	ARTICLES OF PLASTICS, NESOI	29,964,208	32,750,853	2,786,645	9.30	20.45
14	903082	INST TO CHECK SEMICONDUCT WAFERS &SUCH THAT RECORD	5,736,642	31,835,949	26,099,307	454.96	24.23
15	847149	DIGITAL ADP MAC & UNITS,ENTERED AS SYSTEMS, NESOI	13,241,027	29,966,362	16,725,335	126.31	8.44
16	382200	COMPOSITE DIAGNOSTIC/LAB REAGENTS, EXC PHARMACEUT	13,602,504	29,026,241	15,423,737	113.39	8.17
17	847180	AUTOMATIC DATA PROCESSING UNITS, N.E.S.O.I.	41,046,736	28,619,611	-12,427,125	-30.28	2.59
18	854219	MONOLITHIC INTEGRATED CIRCUITS, DIGITAL, NESOI	40,277,241	26,792,203	-13,485,038	-33.48	12.20
19	903090	PTS OF INST F MEAS ELECT QUAT ALPHA BETA INZNG RDT	20,734,300	25,426,784	4,692,484	22.63	12.46
20	842122	BEVERAGE FILTERING OR PURIFYING MACH & APPARATUS	2,499,362	24,466,746	21,967,384	878.92	91.61
RANK	HS 6	TOP 10 COMMODITY GAINS	1999	2000	INCR 99-00	%INCR	%US
1	851790	PT ELECT APPR F LINE TELEPHONY OR TELEGRAPHY ETC.	64,350,661	140,929,035	76,578,374	119.00	27.96
2	847130	PORT DIGTL AUTOMATIC DATA PROCESS MACH NOT > 10 KG	40,650,655	79,454,750	38,804,095	95.46	60.94
3	841350	RECIPROCATING POSITIVE DISPLACEMENT PUMPS, NESOI	8,810,843	37,414,717	28,603,874	324.64	75.54
4	854311	PARTICLE ACCELERATORS,ION IMPLANTERS FOR SMCNDCTRS	10,456,899	39,016,315	28,559,416	273.12	91.39
5	903082	INST TO CHECK SEMICONDUCT WAFERS &SUCH THAT RECORD	5,736,642	31,835,949	26,099,307	454.96	24.23
6	854390	PT ELEC MACH & APPR W INDIVIDUAL FUNCTIONS, NESOI	13,968,496	38,048,119	24,079,623	172.39	35.07
7	852990	PTS,EX ANTENNA,FOR TRNSMSSN,RDR,RADIO,TV,ETC NESOI	17,493,378	39,603,025	22,109,647	126.39	6.20
8	842122	BEVERAGE FILTERING OR PURIFYING MACH & APPARATUS	2,499,362	24,466,746	21,967,384	878.92	91.61
9	847149	DIGITAL ADP MAC & UNITS,ENTERED AS SYSTEMS, NESOI	13,241,027	29,966,362	16,725,335	126.31	8.44
10	854230	ELECTRONIC MONOLITHIC INTEGRATED CIRCUIT,N.E.S.O.I	39,551,633	55,114,701	15,563,068	39.35	8.74
HS 6	TOP 10 COMMODITY LOSSES		1999	2000	INCR 99-00	%INCR	%US
1	847330	PARTS & ACCESSORIES FOR ADP MACHINES & UNITS	213,162,353	122,827,028	-90,335,325	-42.38	5.30
2	851730	TELEPHONIC OR TELEGRAPHIC SWITCHING APPARATUS	60,938,387	22,124,528	-38,813,859	-63.69	13.16
3	901812	ULTRASONIC SCANNING APPARATUS	32,963,708	14,254,762	-18,708,946	-56.76	29.62
4	854219	MONOLITHIC INTEGRATED CIRCUITS, DIGITAL, NESOI	40,277,241	26,792,203	-13,485,038	-33.48	12.20
5	847180	AUTOMATIC DATA PROCESSING UNITS, N.E.S.O.I.	41,046,736	28,619,611	-12,427,125	-30.28	2.59
6	842129	FILTER/PURIFY MACHINE & APPARATUS FOR LIQUID NESOI	15,080,575	3,881,235	-11,199,340	-74.26	10.74
7	901839	MED NEEDLES, NESOI, CATHERERS ETC AND PARTS ETC	154,243,489	143,388,093	-10,855,396	-7.04	34.52
8	901890	INSTR & APPL F MEDICAL SURGICAL DENTAL VET, NESOI	47,622,869	37,978,075	-9,644,794	-20.25	8.54
9	840910	PARTS FOR AIRCRAFT ENGINES (SP-IGN, ROT OR COMP)	10,883,756	4,140,726	-6,743,030	-61.95	31.03
10	901590	PARTS AND ACCESSORIES FOR SURVEYING ETC NESOI	7,769,233	2,078,606	-5,690,627	-73.25	8.91

*This 6-digit HS commodity is comprised of 10-digit commodities that map to more than one 2-digit SIC.

Massachusetts Exports to United Kingdom by Industry 1999-2000
Leading Industries by \$Value, Growth, Loss of Shipments

RANK TOP 20 INDUSTRIES		1999	2000	%98-99	%99-00	\$Incr 99-00	%US
TOTAL ALL INDUSTRIES		1,921,447,260	2,052,721,106	6.24	6.83	131,273,846	4.94
1	INDUSTRIAL MACHINERY,COMPUTER EQUIPMENT	491,978,025	548,053,631	-4.65	11.40	56,075,606	6.16
2	ELECTRONIC,ELECTRIC EQUIP,EXC COMPUTER	439,692,358	507,634,452	21.09	15.45	67,942,094	8.19
3	INSTRUMENTS AND RELATED PRODUCTS	311,688,193	344,581,889	0.01	10.55	32,893,696	9.01
4	CHEMICALS AND ALLIED PRODUCTS	220,953,943	195,522,950	25.56	-11.51	-25,430,993	5.14
5	FABRICATED METAL PRODUCTS	118,015,623	102,158,862	41.94	-13.44	-15,856,761	9.69
6	PRIMARY METAL INDUSTRIES	47,970,850	68,314,508	-63.04	42.41	20,343,658	3.40
7	RUBBER AND MISC. PLASTICS PRODUCTS	54,555,385	53,946,226	-8.91	-1.12	-609,159	8.05
8	MISC. MANUFACTURING INDUSTRIES	45,528,299	38,116,611	80.72	-16.28	-7,411,688	4.24
9	USED OR SECOND-HAND MERCHANDISE	5,762,944	33,193,204	31.26	475.98	27,430,260	3.62
10	SPECIAL CLASSIFICATION PROVISIONS, NSPF	38,238,285	28,077,872	526.89	-26.57	-10,160,413	6.43
11	PAPER AND ALLIED PRODUCTS	16,818,900	24,884,635	-27.01	47.96	8,065,735	4.39
12	TRANSPORTATION EQUIPMENT	18,765,611	24,052,665	28.47	28.17	5,287,054	0.30
13	TEXTILE MILL PRODUCTS	15,003,636	16,899,547	-17.53	12.64	1,895,911	6.63
14	FOOD AND KINDRED PRODUCTS	32,237,139	11,713,523	85.80	-63.66	-20,523,616	1.70
15	PRINTING AND PUBLISHING	9,098,107	10,296,674	-50.04	13.17	1,198,567	1.80
16	STONE, CLAY, AND GLASS PRODUCTS	8,175,873	10,086,564	28.50	23.37	1,910,691	2.13
17	LEATHER AND LEATHER PRODUCTS	6,735,299	7,821,809	12.41	16.13	1,086,510	13.23
18	CHARITY,MILITARY NIK,SHIPMENTS<10K NIK	7,242,386	6,248,341	4.57	-13.73	-994,045	4.71
19	FISHING, HUNTING, AND TRAPPING	14,204,918	6,239,354	116.55	-56.08	-7,965,564	25.74
20	FURNITURE AND FIXTURES	7,359,077	5,222,257	278.22	-29.04	-2,136,820	2.41
RANK TOP 10 GROWTH INDUSTRIES		1999	2000	%98-99	%99-00	\$Incr 99-00	%US
1	ELECTRONIC,ELECTRIC EQUIP,EXC COMPUTER	439,692,358	507,634,452	21.09	15.45	67,942,094	8.19
2	INDUSTRIAL MACHINERY,COMPUTER EQUIPMENT	491,978,025	548,053,631	-4.65	11.40	56,075,606	6.16
3	INSTRUMENTS AND RELATED PRODUCTS	311,688,193	344,581,889	0.01	10.55	32,893,696	9.01
4	USED OR SECOND-HAND MERCHANDISE	5,762,944	33,193,204	31.26	475.98	27,430,260	3.62
5	PRIMARY METAL INDUSTRIES	47,970,850	68,314,508	-63.04	42.41	20,343,658	3.40
6	PAPER AND ALLIED PRODUCTS	16,818,900	24,884,635	-27.01	47.96	8,065,735	4.39
7	TRANSPORTATION EQUIPMENT	18,765,611	24,052,665	28.47	28.17	5,287,054	0.30
8	STONE, CLAY, AND GLASS PRODUCTS	8,175,873	10,086,564	28.50	23.37	1,910,691	2.13
9	TEXTILE MILL PRODUCTS	15,003,636	16,899,547	-17.53	12.64	1,895,911	6.63
10	LUMBER AND WOOD PRODUCTS	2,859,513	4,292,789	-5.33	50.12	1,433,276	1.54
RANK TOP 10 LOSSES BY INDUSTRY		1999	2000	%98-99	%99-00	\$Incr 99-00	%US
1	CHEMICALS AND ALLIED PRODUCTS	220,953,943	195,522,950	25.56	-11.51	-25,430,993	5.14
2	FOOD AND KINDRED PRODUCTS	32,237,139	11,713,523	85.80	-63.66	-20,523,616	1.70
3	FABRICATED METAL PRODUCTS	118,015,623	102,158,862	41.94	-13.44	-15,856,761	9.69
4	SPECIAL CLASSIFICATION PROVISIONS, NSPF	38,238,285	28,077,872	526.89	-26.57	-10,160,413	6.43
5	FISHING, HUNTING, AND TRAPPING	14,204,918	6,239,354	116.55	-56.08	-7,965,564	25.74
6	MISC. MANUFACTURING INDUSTRIES	45,528,299	38,116,611	80.72	-16.28	-7,411,688	4.24
7	APPAREL AND OTHER TEXTILE PRODUCTS	5,629,414	2,755,913	9.20	-51.04	-2,873,501	1.84
8	FURNITURE AND FIXTURES	7,359,077	5,222,257	278.22	-29.04	-2,136,820	2.41
9	CHARITY,MILITARY NIK,SHIPMENTS<10K NIK	7,242,386	6,248,341	4.57	-13.73	-994,045	4.71
10	AGRICULTURAL PRODUCTION-CROPS	1,962,951	1,089,185	222.18	-44.51	-873,766	0.35



MA Export Industries to United Kingdom by Leading Commodity Components
Top 10 Industries Sorted by \$Value 2000

SIC HS 6	TOP 10 INDUSTRIES	1999	2000	INCR 99-00	%INCR	% OF US
INDUSTRIAL MACHINERY, COMPUTER EQUIPMENT						
35 847330	PARTS & ACCESSORIES FOR ADP MACHINES & UNITS	232,142,690	214,709,792	-17,432,898	-7.51	9.46
35 847180	AUTOMATIC DATA PROCESSING UNITS, N.E.S.O.I.	57,311,641	67,379,339	10,067,698	17.57	8.11
35 847149*	DIGITAL ADP MAC & UNITS, ENTERED AS SYSTEMS, NESOI	22,860,589	32,332,934	9,472,345	41.44	12.56
ELECTRONIC, ELECTRIC EQUIP, EXC COMPUTER						
36 854213	METAL OXIDE SEMICONDUCTORS (MOS), MONO DIGITAL INTEG	111,424,568	106,316,261	-5,108,307	-4.58	8.12
36 851790	PT ELECT APPR F LINE TELEPHONY OR TELEGRAPHY ETC.	54,366,817	62,406,613	8,039,796	14.79	18.21
36 901819*	ELECTRO-DIAGNOSTIC APPARATUS NESOI, AND PARTS ETC.	19,513,757	41,483,589	21,969,832	112.59	32.02
INSTRUMENTS AND RELATED PRODUCTS						
38 902111	ARTIFICIAL JOINTS AND PARTS AND ACCESSORIES	50,733,397	43,279,684	-7,453,713	-14.69	41.10
38 901819*	ELECTRO-DIAGNOSTIC APPARATUS NESOI, AND PARTS ETC.	19,513,757	41,483,589	21,969,832	112.59	32.02
38 903040	OTH INST, SPECIALLY DESIGNED FOR TELECOMMUNICATION	12,814,201	22,401,541	9,587,340	74.82	19.20
CHEMICALS AND ALLIED PRODUCTS						
28 300490	MEDICAMENTS NESOI, MEASURED DOSES, RETAIL PK NESOI	156,938,494	130,005,012	-26,933,482	-17.16	16.69
28 300210	ANTISERA AND BLOOD FRACTIONS, IMMUN PRODUCTS	7,172,746	9,435,175	2,262,429	31.54	16.26
28 382200	COMPOSITE DIAGNOSTIC/LAB REAGENTS, EXC PHARMACEUT	7,861,232	9,017,239	1,156,007	14.71	3.00
FABRICATED METAL PRODUCTS						
34 821210	RAZORS	78,064,562	75,179,700	-2,884,862	-3.70	98.97
34 821220	SAFETY RAZOR BLADES AND BLADE BLANKS IN STRIPS	10,544,140	4,595,080	-5,949,060	-56.42	40.78
34 930690	BOMB MINES OT AMMNITION PROJCTIONS ETC AND PARTS	2,001,324	3,419,486	1,418,162	70.86	1.84
PRIMARY METAL INDUSTRIES						
33 710812	GOLD, NONMONETARY, UNWROUGHT NESOI	25,930	26,841,500	26,815,570	103,415.23	2.69
33 854459	ELEC COND OV 80V NOV 1000V NOT FITTED W CONNECTOR	1,906,151	3,801,589	1,895,438	99.44	26.35
33 810390	TANTALUM AND ARTICLES THEREOF, NESOI	1,157,337	3,188,230	2,030,893	175.48	62.65
RUBBER AND MISC. PLASTICS PRODUCTS						
30 392069	PLATES ETC, NONCELL ETC, NO REIN, POLYESTERS NESOI	24,309,835	22,264,000	-2,045,835	-8.42	72.58
30 392690*	ARTICLES OF PLASTICS, NESOI	7,985,373	13,228,513	5,243,140	65.66	12.74
30 392062	PLATES ETC, NONCELL ETC, POLYETHYLENE TEREPHTHALATE	4,005,406	1,972,053	-2,033,353	-50.77	4.27
MISC. MANUFACTURING INDUSTRIES						
39 950632	GOLF BALLS	22,341,798	14,220,117	-8,121,681	-36.35	40.35
39 392690*	ARTICLES OF PLASTICS, NESOI	7,985,373	13,228,513	5,243,140	65.66	12.74
39 340600	CANDLES, TAPERS AND THE LIKE	5,131,510	5,293,858	162,348	3.16	70.31
USED OR SECOND-HAND MERCHANDISE						
92 970110	PAINTINGS, DRAWING AND PASTELS BY HAND	3,084,671	26,209,304	23,124,633	749.66	3.99
92 970300	ORIGINAL SCULPTURES AND STATUARY, IN ANY MATERIAL	234,375	518,374	283,999	121.17	1.19
92 970600	ANTIQUES OF AN AGE EXCEEDING ONE HUNDRED YEARS	1,069,554	409,378	-660,176	-61.72	0.28
SPECIAL CLASSIFICATION PROVISIONS, NSPF						
99 852431	LASER DISCS, FOR REPRODUCING OTHER THAN SOUND/IMAGE	18,175,167	11,327,888	-6,847,279	-37.67	16.19
99 852499*	RECORDED MEDIA FOR REPRODUCING SND OR IMAGE, NESOI	8,686,923	7,320,526	-1,366,397	-15.73	14.09
99 980110	VALUE OF REPAIR/ALTER ARTICLES PREVIOUS IMPORTED	4,139,730	5,043,928	904,198	21.84	2.27

*This 6-digit HS commodity is comprised of 10-digit commodities that map to more than one 2-digit SIC.

MA Export Industries to United Kingdom by Leading Commodity Components Top 5 Growth and Loss Industries 1999-2000

SIC	HS 6	TOP 5 GROWTH INDUSTRIES	1999	2000	INCR 99-00	%INCR	% OF US
ELECTRONIC,ELECTRIC EQUIP,EXC COMPUTER							
36	853221	TANTALUM ELECTROLYTIC FIXED CAPACITORS	1,208,758	36,115,589	34,906,831	2,887.83	66.60
36	901819*	ELECTRO-DIAGNOSTIC APPARATUS NESOI, AND PARTS ETC.	19,513,757	41,483,589	21,969,832	112.59	32.02
36	851780	ELECTRIC TELEPHONIC & TELEGRAPHIC APPARATUS, NESOI	1,656,387	11,596,134	9,939,747	600.09	55.55
INDUSTRIAL MACHINERY,COMPUTER EQUIPMENT							
35	847180	AUTOMATIC DATA PROCESSING UNITS, N.E.S.O.I.	57,311,641	67,379,339	10,067,698	17.57	8.11
35	847170	AUTOMATIC DATA PROCESSING STORAGE UNITS, N.E.S.O.I	4,860,051	14,847,066	9,987,015	205.49	6.32
35	847190	ADP MAC&UNTS THEREOF;MAG/OPT RDER,TRNSCRB,PROC DAT	15,924,638	25,566,433	9,641,795	60.55	17.91
INSTRUMENTS AND RELATED PRODUCTS							
38	901819*	ELECTRO-DIAGNOSTIC APPARATUS NESOI, AND PARTS ETC.	19,513,757	41,483,589	21,969,832	112.59	32.02
38	370241	PHOT FILM NO SPROCKET HOLES,OV 610MM& OV 200MM CLR	6,593,184	18,347,326	11,754,142	178.28	89.07
38	902119	ORTHOPDC/FRACTR APPL (EX ART JOINT/PT),PT & ACCESS	1,922,688	12,339,336	10,416,648	541.78	37.47
USED OR SECOND-HAND MERCHANDISE							
92	970110	PAINTINGS, DRAWING AND PASTELS BY HAND	3,084,671	26,209,304	23,124,633	749.66	3.99
92	970300	ORIGINAL SCULPTURES AND STATUARY, IN ANY MATERIAL	234,375	518,374	283,999	121.17	1.19
92	970190	COLLAGES AND SIMILAR DECORATIVE PLAQUES	48,600	295,942	247,342	508.93	0.87
PRIMARY METAL INDUSTRIES							
33	710812	GOLD, NONMONETARY, UNWROUGHT NESOI	25,930	26,841,500	26,815,570	103,415.23	2.69
33	810390	TANTALUM AND ARTICLES THEREOF, NESOI	1,157,337	3,188,230	2,030,893	175.48	62.65
33	854459	ELEC COND OV 80V NOV 1000V NOT FITTED W CONNECTOR	1,906,151	3,801,589	1,895,438	99.44	26.35
SIC	HS 6	TOP 5 INDUSTRY LOSSES	1999	2000	INCR 99-00	%INCR	% OF US
CHEMICALS AND ALLIED PRODUCTS							
28	300490	MEDICAMENTS NESOI, MEASURED DOSES, RETAIL PK NESOI	156,938,494	130,005,012	-26,933,482	-17.16	16.69
28	300339	MEDICAMENT CONT HORMONES, NO ANTIBIOTICS, NO DOSES	3,435,916	0	-3,435,916	-100.00	0.00
28	321410	MASTICS; PAINTERS' FILLINGS	1,734,463	622,717	-1,111,746	-64.10	15.62
FOOD AND KINDRED PRODUCTS							
20	220290	NONALCOHOLIC BEVERAGES, NESOI	19,412,217	854,143	-18,558,074	-95.60	53.10
20	200930	CITRUS FRUIT JUICE FROM A SINGLE FRUIT, NESOI	3,692,268	4,735	-3,687,533	-99.87	4.12
20	151590	FIXED VEG OIL, REF OR NOT, NESOI, NT CHEM MODIFIED	165,415	0	-165,415	-100.00	0.00
FABRICATED METAL PRODUCTS							
34	821220	SAFETY RAZOR BLADES AND BLADE BLANKS IN STRIPS	10,544,140	4,595,080	-5,949,060	-56.42	40.78
34	890790	FLOATING STRUCTURES EXCEPT INFLATABLE RAFTS	3,036,648	44,141	-2,992,507	-98.55	1.71
34	821210	RAZORS	78,064,562	75,179,700	-2,884,862	-3.70	98.97
SPECIAL CLASSIFICATION PROVISIONS, NSPF							
99	852431	LASER DISCS, FOR REPRODUCING OTHER THAN SOUND/IMAGE	18,175,167	11,327,888	-6,847,279	-37.67	16.19
99	852439	DISCS FOR LASER READING SYSTEMS, NESOI	3,124,030	1,327,652	-1,796,378	-57.50	6.51
99	852499*	RECORDED MEDIA FOR REPRODUCING SND OR IMAGE, NESOI	8,686,923	7,320,526	-1,366,397	-15.73	14.09
FISHING, HUNTING, AND TRAPPING							
9	30420	FISH FILLETS, FROZEN	2,340,948	0	-2,340,948	-100.00	0.00
9	30269	FISH, NESOI, WITH BONES, FRESH OR CHILLED	1,941,850	195,836	-1,746,014	-89.91	25.86
9	30222	PLAICE EXCEPT FILLETS, LIVERS, ROES, FRESH/CHILLED	1,774,025	312,287	-1,461,738	-82.40	57.20

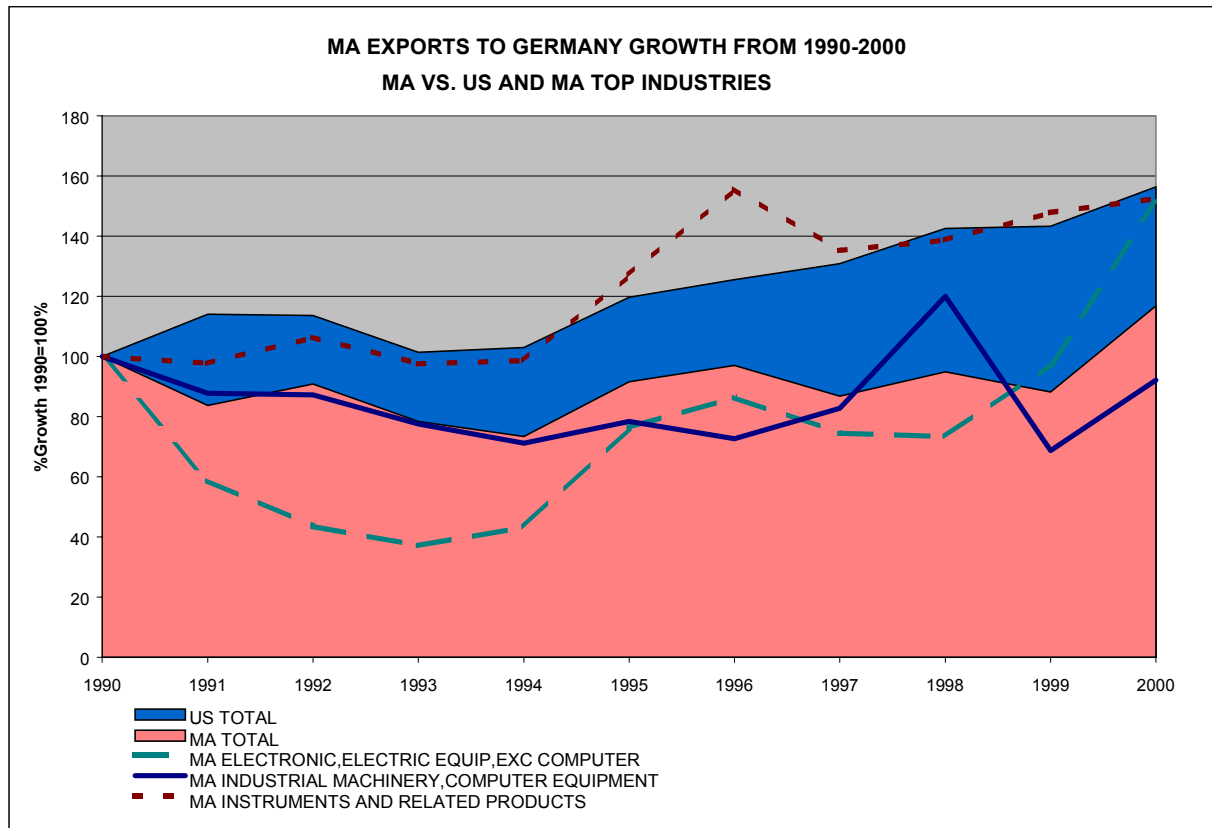
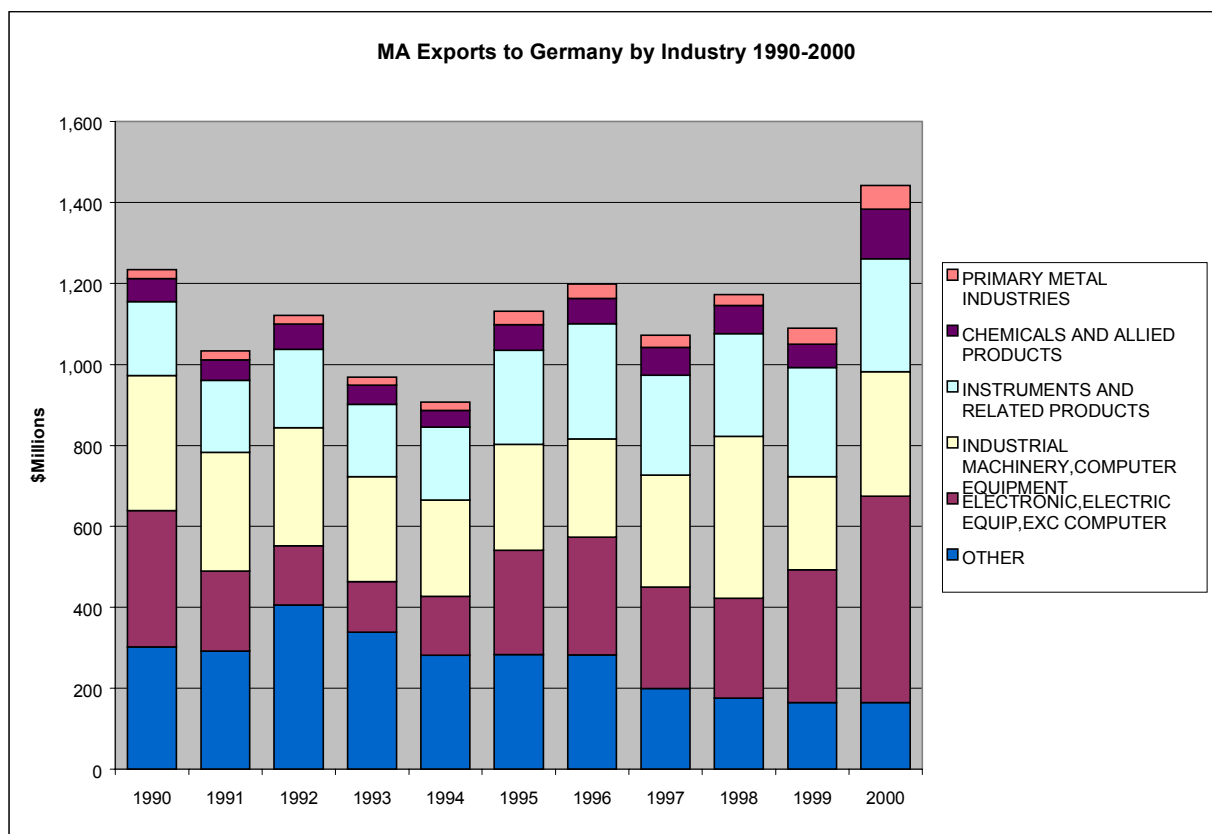
*This 6-digit HS commodity is comprised of 10-digit commodities that map to more than one 2-digit SIC.

MA Exports to United Kingdom by Commodity
Leading Commodities by \$Value, Growth, Loss of Shipments 1999-2000

RANK	HS 6	TOP 20 COMMODITIES	1999	2000	INCR 99-00	%INCR	%US
1	847330	PARTS & ACCESSORIES FOR ADP MACHINES & UNITS	232,142,690	214,709,792	-17,432,898	-7.51	9.46
2	300490	MEDICAMENTS NESOI, MEASURED DOSES, RETAIL PK NESOI	156,938,494	130,005,012	-26,933,482	-17.16	16.69
3	854213	METAL OXIDE SEMICONDUCTORS(MOS),MONO DIGITAL INTEG	111,424,568	106,316,261	-5,108,307	-4.58	8.12
4	821210	RAZORS	78,064,562	75,179,700	-2,884,862	-3.70	98.97
5	847180	AUTOMATIC DATA PROCESSING UNITS, N.E.S.O.I.	57,311,641	67,379,339	10,067,698	17.57	8.11
6	851790	PT ELECT APPR F LINE TELEPHONY OR TELEGRAPHY ETC.	54,366,817	62,406,613	8,039,796	14.79	18.21
7	902111	ARTIFICIAL JOINTS AND PARTS AND ACCESSORIES	50,733,397	43,279,684	-7,453,713	-14.69	41.10
8	901819	ELECTRO-DIAGNOSTIC APPARATUS NESOI, AND PARTS ETC.	19,513,757	41,483,589	21,969,832	112.59	32.02
9	854230	ELECTRONIC MONOLITHIC INTEGRATED CIRCUIT,N.E.S.O.I	33,822,369	40,391,700	6,569,331	19.42	19.99
10	853221	TANTALUM ELECTROLYTIC FIXED CAPACITORS	1,208,758	36,115,589	34,906,831	2,887.83	66.60
11	851750	TELECOMM APPRTUS,CARRIER-CUR & DIGITAL SYSTM,NESOI	46,861,218	32,547,438	-14,313,780	-30.55	10.09
12	847149	DIGITAL ADP MAC & UNITS,ENTERED AS SYSTEMS, NESOI	22,860,589	32,332,934	9,472,345	41.44	12.56
13	710812	GOLD, NONMONETARY, UNWROUGHT NESOI	25,930	26,841,500	26,815,570	103,415.23	2.69
14	970110	PAINTINGS, DRAWING AND PASTELS BY HAND	3,084,671	26,209,304	23,124,633	749.66	3.99
15	847190	ADP MAC&UNTS THEREOF;MAG/OPT RDER,TRNSCRB,PROC DAT	15,924,638	25,566,433	9,641,795	60.55	17.91
16	854219	MONOLITHIC INTEGRATED CIRCUITS, DIGITAL, NESOI	22,738,228	22,684,109	-54,119	-0.24	36.65
17	903040	OTH INST, SPECIALLY DESIGNED FOR TELECOMMUNICATION	12,814,201	22,401,541	9,587,340	74.82	19.20
18	392069	PLATES ETC, NONCELL ETC, NO REIN, POLYESTERS NESOI	24,309,835	22,264,000	-2,045,835	-8.42	72.58
19	900691	PARTS AND ACCESSORIES FOR STILL PHOTO CAMERAS	28,502,836	19,410,101	-9,092,735	-31.90	85.33
20	370241	PHOT FILM NO SPROCKET HOLES,OV 610MM& OV 200MM CLR	6,593,184	18,347,326	11,754,142	178.28	89.07
RANK	HS 6	TOP 10 COMMODITY GAINS	1999	2000	INCR 99-00	%INCR	%US
1	853221	TANTALUM ELECTROLYTIC FIXED CAPACITORS	1,208,758	36,115,589	34,906,831	2,887.83	66.60
2	710812	GOLD, NONMONETARY, UNWROUGHT NESOI	25,930	26,841,500	26,815,570	103,415.23	2.69
3	970110	PAINTINGS, DRAWING AND PASTELS BY HAND	3,084,671	26,209,304	23,124,633	749.66	3.99
4	901819	ELECTRO-DIAGNOSTIC APPARATUS NESOI, AND PARTS ETC.	19,513,757	41,483,589	21,969,832	112.59	32.02
5	370241	PHOT FILM NO SPROCKET HOLES,OV 610MM& OV 200MM CLR	6,593,184	18,347,326	11,754,142	178.28	89.07
6	902119	ORTHOPDC/FRACTR APPL (EX ART JOINT/PT),PT & ACCESS	1,922,688	12,339,336	10,416,648	541.78	37.47
7	847180	AUTOMATIC DATA PROCESSING UNITS, N.E.S.O.I.	57,311,641	67,379,339	10,067,698	17.57	8.11
8	847170	AUTOMATIC DATA PROCESSING STORAGE UNITS, N.E.S.O.I	4,860,051	14,847,066	9,987,015	205.49	6.32
9	851780	ELECTRIC TELEPHONIC & TELEGRAPHIC APPARATUS, NESOI	1,656,387	11,596,134	9,939,747	600.09	55.55
10	847190	ADP MAC&UNTS THEREOF;MAG/OPT RDER,TRNSCRB,PROC DAT	15,924,638	25,566,433	9,641,795	60.55	17.91
HS 6	TOP 10 COMMODITY LOSSES		1999	2000	INCR 99-00	%INCR	%US
1	300490	MEDICAMENTS NESOI, MEASURED DOSES, RETAIL PK NESOI	156,938,494	130,005,012	-26,933,482	-17.16	16.69
2	220290	NONALCOHOLIC BEVERAGES, NESOI	19,412,217	854,143	-18,558,074	-95.60	53.10
3	847330	PARTS & ACCESSORIES FOR ADP MACHINES & UNITS	232,142,690	214,709,792	-17,432,898	-7.51	9.46
4	710691	SILVER, UNWROUGHT NESOI	15,959,958	40,608	-15,919,350	-99.75	0.24
5	851750	TELECOMM APPRTUS,CARRIER-CUR & DIGITAL SYSTM,NESOI	46,861,218	32,547,438	-14,313,780	-30.55	10.09
6	902610	INST & APPRTS, MEASURE/CHECKING FLOW/LEVEL OF LIQ	10,778,690	1,205,311	-9,573,379	-88.82	7.35
7	900691	PARTS AND ACCESSORIES FOR STILL PHOTO CAMERAS	28,502,836	19,410,101	-9,092,735	-31.90	85.33
8	950632	GOLF BALLS	22,341,798	14,220,117	-8,121,681	-36.35	40.35
9	851730	TELEPHONIC OR TELEGRAPHIC SWITCHING APPARATUS	25,524,948	17,621,763	-7,903,185	-30.96	14.58
10	902111	ARTIFICIAL JOINTS AND PARTS AND ACCESSORIES	50,733,397	43,279,684	-7,453,713	-14.69	41.10

Massachusetts Exports to Germany by Industry 1999-2000
Leading Industries by \$Value, Growth, Loss of Shipments

RANK TOP 20 INDUSTRIES		1999	2000	%98-99	%99-00	\$Incr 99-00	%US
TOTAL ALL INDUSTRIES		1,089,427,404	1,442,274,766	-7.04	32.39	352,847,362	4.93
1	ELECTRONIC,ELECTRIC EQUIP,EXC COMPUTER	328,126,895	509,625,711	32.79	55.31	181,498,816	13.56
2	INDUSTRIAL MACHINERY,COMPUTER EQUIPMENT	229,657,979	307,780,513	-42.64	34.02	78,122,534	4.64
3	INSTRUMENTS AND RELATED PRODUCTS	269,985,353	278,628,105	6.59	3.20	8,642,752	7.77
4	CHEMICALS AND ALLIED PRODUCTS	57,273,896	122,792,318	-17.49	114.39	65,518,422	4.81
5	PRIMARY METAL INDUSTRIES	39,590,765	58,551,305	50.26	47.89	18,960,540	10.77
6	RUBBER AND MISC. PLASTICS PRODUCTS	34,139,899	32,552,800	10.95	-4.65	-1,587,099	6.12
7	SPECIAL CLASSIFICATION PROVISIONS, NSPF	29,315,897	22,650,269	617.17	-22.74	-6,665,628	8.47
8	TRANSPORTATION EQUIPMENT	8,484,422	16,454,735	34.77	93.94	7,970,313	0.24
9	FABRICATED METAL PRODUCTS	21,555,097	13,800,309	-40.58	-35.98	-7,754,788	2.24
10	MISC. MANUFACTURING INDUSTRIES	10,926,739	12,192,582	-36.20	11.58	1,265,843	3.53
11	CHARITY,MILITARY NIK,SHIPMENTS<10K NIK	3,728,234	11,863,724	11.10	218.21	8,135,490	3.67
12	STONE, CLAY, AND GLASS PRODUCTS	10,544,386	10,614,407	-7.17	0.66	70,021	2.53
13	PAPER AND ALLIED PRODUCTS	8,963,771	9,313,502	6.96	3.90	349,731	1.68
14	FISHING, HUNTING, AND TRAPPING	7,678,051	8,930,629	-18.87	16.31	1,252,578	19.90
15	TEXTILE MILL PRODUCTS	6,014,307	6,035,858	-36.21	0.36	21,551	4.65
16	PRINTING AND PUBLISHING	7,403,660	5,336,497	-17.34	-27.92	-2,067,163	4.68
17	SCRAP AND WASTE	3,724,942	3,768,025	-62.89	1.16	43,083	2.30
18	FURNITURE AND FIXTURES	1,885,543	3,691,567	3.44	95.78	1,806,024	4.47
19	FOOD AND KINDRED PRODUCTS	531,985	2,124,631	-30.08	299.38	1,592,646	0.66
20	USED OR SECOND-HAND MERCHANDISE	1,835,926	2,116,046	-75.94	15.26	280,120	0.69
RANK TOP 10 GROWTH INDUSTRIES		1999	2000	%98-99	%99-00	\$Incr 99-00	%US
1	ELECTRONIC,ELECTRIC EQUIP,EXC COMPUTER	328,126,895	509,625,711	32.79	55.31	181,498,816	13.56
2	INDUSTRIAL MACHINERY,COMPUTER EQUIPMENT	229,657,979	307,780,513	-42.64	34.02	78,122,534	4.64
3	CHEMICALS AND ALLIED PRODUCTS	57,273,896	122,792,318	-17.49	114.39	65,518,422	4.81
4	PRIMARY METAL INDUSTRIES	39,590,765	58,551,305	50.26	47.89	18,960,540	10.77
5	INSTRUMENTS AND RELATED PRODUCTS	269,985,353	278,628,105	6.59	3.20	8,642,752	7.77
6	CHARITY,MILITARY NIK,SHIPMENTS<10K NIK	3,728,234	11,863,724	11.10	218.21	8,135,490	3.67
7	TRANSPORTATION EQUIPMENT	8,484,422	16,454,735	34.77	93.94	7,970,313	0.24
8	FURNITURE AND FIXTURES	1,885,543	3,691,567	3.44	95.78	1,806,024	4.47
9	FOOD AND KINDRED PRODUCTS	531,985	2,124,631	-30.08	299.38	1,592,646	0.66
10	MISC. MANUFACTURING INDUSTRIES	10,926,739	12,192,582	-36.20	11.58	1,265,843	3.53
RANK TOP 10 LOSSES BY INDUSTRY		1999	2000	%98-99	%99-00	\$Incr 99-00	%US
1	FABRICATED METAL PRODUCTS	21,555,097	13,800,309	-40.58	-35.98	-7,754,788	2.24
2	SPECIAL CLASSIFICATION PROVISIONS, NSPF	29,315,897	22,650,269	617.17	-22.74	-6,665,628	8.47
3	LEATHER AND LEATHER PRODUCTS	4,705,270	1,858,552	-2.25	-60.50	-2,846,718	4.39
4	PRINTING AND PUBLISHING	7,403,660	5,336,497	-17.34	-27.92	-2,067,163	4.68
5	RUBBER AND MISC. PLASTICS PRODUCTS	34,139,899	32,552,800	10.95	-4.65	-1,587,099	6.12
6	LUMBER AND WOOD PRODUCTS	1,212,082	271,118	-18.22	-77.63	-940,964	0.12
7	PETROLEUM AND COAL PRODUCTS	753,098	260,130	733.47	-65.46	-492,968	0.87
8	NONMETALLIC MINERALS, EXCEPT FUELS	232,417	35,781	-85.77	-84.60	-196,636	0.07
9	APPAREL AND OTHER TEXTILE PRODUCTS	767,523	645,617	-11.80	-15.88	-121,906	0.96
10	AGRICULTURAL PRODUCTION-LIVESTOCK	212,258	104,957	-33.33	-50.55	-107,301	0.49



MA Export Industries to Germany by Leading Commodity Components
Top 10 Industries Sorted by \$Value 2000

SIC HS 6	TOP 10 INDUSTRIES	1999	2000	INCR 99-00	%INCR	% OF US
ELECTRONIC,ELECTRIC EQUIP,EXC COMPUTER						
36 851790	PT ELECT APPR F LINE TELEPHONY OR TELEGRAPHY ETC.	77,683,771	148,945,795	71,262,024	91.73	56.20
36 901819*	ELECTRO-DIAGNOSTIC APPARATUS NESOI, AND PARTS ETC.	71,773,308	56,916,957	-14,856,351	-20.70	15.48
36 854219	MONOLITHIC INTEGRATED CIRCUITS, DIGITAL, NESOI	21,012,115	36,669,003	15,656,888	74.51	59.34
INDUSTRIAL MACHINERY,COMPUTER EQUIPMENT						
35 847330	PARTS & ACCESSORIES FOR ADP MACHINES & UNITS	44,639,052	57,100,390	12,461,338	27.92	3.27
35 854311	PARTICLE ACCELERATORS,ION IMPLANTERS FOR SMCNDCTRS	13,308,210	39,932,662	26,624,452	200.06	89.66
35 847149*	DIGITAL ADP MAC & UNITS,ENTERED AS SYSTEMS, NESOI	11,825,785	22,903,945	11,078,160	93.68	10.40
INSTRUMENTS AND RELATED PRODUCTS						
38 901819*	ELECTRO-DIAGNOSTIC APPARATUS NESOI, AND PARTS ETC.	71,773,308	56,916,957	-14,856,351	-20.70	15.48
38 903082	INST TO CHECK SEMICONDUCT WAFERS & SUCH THAT RECORD	14,060,707	33,533,335	19,472,628	138.49	33.09
38 901890	INSTR & APPL F MEDICAL SURGICAL DENTAL VET, NESOI	22,396,100	23,376,177	980,077	4.38	10.43
CHEMICALS AND ALLIED PRODUCTS						
28 300220	VACCINES FOR HUMAN MEDICINE	117,442	28,406,006	28,288,564	24,087.26	46.47
28 382200	COMPOSITE DIAGNOSTIC/LAB REAGENTS, EXC PHARMACEUT	7,529,366	26,997,623	19,468,257	258.56	5.54
28 300210	ANTISERA AND BLOOD FRACTIONS, IMMUN PRODUCTS	17,377,077	23,934,926	6,557,849	37.74	14.62
PRIMARY METAL INDUSTRIES						
33 722020	FLAT-ROLLED STNLS STL UND 600MM WIDE, CLD-RLD	7,455,413	23,089,364	15,633,951	209.70	78.98
33 854411	INSULATED WINDING WIRE OF COPPER	7,002,003	8,243,878	1,241,875	17.74	78.24
33 810390	TANTALUM AND ARTICLES THEREOF, NESOI	9,649,032	7,548,000	-2,101,032	-21.77	68.80
RUBBER AND MISC. PLASTICS PRODUCTS						
30 392690*	ARTICLES OF PLASTICS, NESOI	4,942,343	6,519,552	1,577,209	31.91	6.30
30 590699	RUBBERIZED TEXT FABRIC NESOI, NOT KNIT OR CROCHET	6,879,642	5,717,855	-1,161,787	-16.89	91.79
30 391729	TUBES, PIPES & HOSES, RIGID, OF PLASTIC NESOI	2,397,833	4,783,559	2,385,726	99.50	74.86
SPECIAL CLASSIFICATION PROVISIONS, NSPF						
99 852499*	RECORDED MEDIA FOR REPRODUCING SND OR IMAGE, NESOI	8,837,379	10,038,504	1,201,125	13.59	27.79
99 852431	LASER DISCS, FOR REPRODUCING OTHER THAN SOUND/IMAGE	13,809,465	6,040,215	-7,769,250	-56.26	11.12
99 980110	VALUE OF REPAIR/ALTER ARTICLES PREVIOUS IMPORTED	2,947,292	3,627,141	679,849	23.07	3.07
TRANSPORTATION EQUIPMENT						
37 841191*	TURBOJET AND TURBOPROLLER PARTS	1,909,457	7,983,250	6,073,793	318.09	1.00
37 841111*	TURBOJETS OF A THRUST NOT EXCEEDING 25 KN	450,000	2,014,480	1,564,480	347.66	6.06
37 880330	PARTS OF AIRPLANES OR HELICOPTERS, NESOI	985,012	1,291,020	306,008	31.07	0.16
FABRICATED METAL PRODUCTS						
34 741021	COPPER FOIL, NOV.15MM THICK, BACKED, REFIN COPPER	5,111,479	2,463,885	-2,647,594	-51.80	30.08
34 820220	BANDSAW BLADES, AND BASE METAL PARTS THEREOF	379,514	1,467,174	1,087,660	286.59	55.69
34 930690	BOMB MINES OT AMMNITION PROJECTIONS ETC AND PARTS	4,153,543	1,415,828	-2,737,715	-65.91	1.73
MISC. MANUFACTURING INDUSTRIES						
39 392690*	ARTICLES OF PLASTICS, NESOI	4,942,343	6,519,552	1,577,209	31.91	6.30
39 854389*	ELECTRICAL MACH & APPAR, HAVING INDIVIDUAL FUNC, NESOI	3,112,728	5,211,218	2,098,490	67.42	9.46
39 950639	GOLF EQUIP EX CLUBS & BALLS; PARTS AND ACCESSORIES	2,115,506	2,929,972	814,466	38.50	60.81

*This 6-digit HS commodity is comprised of 10-digit commodities that map to more than one 2-digit SIC.

MA Export Industries to Germany by Leading Commodity Components Top 5 Growth and Loss Industries 1999-2000

SIC HS 6	TOP 5 GROWTH INDUSTRIES	1999	2000	INCR 99-00	%INCR	% OF US
ELECTRONIC,ELECTRIC EQUIP,EXC COMPUTER						
36 851790	PT ELECT APPR F LINE TELEPHONY OR TELEGRAPHY ETC.	77,683,771	148,945,795	71,262,024	91.73	56.20
36 851840	AUDIO-FREQUENCY ELECTRIC AMPLIFIERS	2,389,494	32,926,981	30,537,487	1,277.99	56.11
36 851822	MULTIPLE LOUDSPEAKERS, MOUNTED IN SAME ENCLOSURE	1,556,520	20,925,458	19,368,938	1,244.37	76.30
INDUSTRIAL MACHINERY,COMPUTER EQUIPMENT						
35 854311	PARTICLE ACCELERATORS,ION IMPLANTERS FOR SMCNDCTRS	13,308,210	39,932,662	26,624,452	200.06	89.66
35 847330	PARTS & ACCESSORIES FOR ADP MACHINES & UNITS	44,639,052	57,100,390	12,461,338	27.92	3.27
35 847990	PTS OF MACH/MECHNCL APPL W INDVDUL FUNCTION NESOI	7,959,048	19,095,076	11,136,028	139.92	9.74
CHEMICALS AND ALLIED PRODUCTS						
28 300220	VACCINES FOR HUMAN MEDICINE	117,442	28,406,006	28,288,564	24,087.26	46.47
28 382200	COMPOSITE DIAGNOSTIC/LAB REAGENTS, EXC PHARMACEUT	7,529,366	26,997,623	19,468,257	258.56	5.54
28 300210	ANTISERA AND BLOOD FRACTIONS, IMMUN PRODUCTS	17,377,077	23,934,926	6,557,849	37.74	14.62
PRIMARY METAL INDUSTRIES						
33 722020	FLAT-ROLLED STNLS STL UND 600MM WIDE, CLD-RLD	7,455,413	23,089,364	15,633,951	209.70	78.98
33 280461	SILICON CONTAIN BY WT NT < 99.99% OF SILICON	730,487	3,696,436	2,965,949	406.02	37.44
33 854411	INSULATED WINDING WIRE OF COPPER	7,002,003	8,243,878	1,241,875	17.74	78.24
INSTRUMENTS AND RELATED PRODUCTS						
38 903082	INST TO CHECK SEMICONDUCT WAFERS & SUCH THAT RECORD	14,060,707	33,533,335	19,472,628	138.49	33.09
38 903290	PTS, AUTOM REGULATING/CONTROLLING INST & APPRTS	1,175,130	11,114,045	9,938,915	845.77	28.29
38 902290*	X-RAY/HI TNSN GENR CNTR PNL & DSK EXM/TRTMNT TB PT	1,195,926	4,771,405	3,575,479	298.97	3.97
SIC HS 6	TOP 5 INDUSTRY LOSSES	1999	2000	INCR 99-00	%INCR	% OF US
FABRICATED METAL PRODUCTS						
34 930690	BOMB MINES OT AMMNITION PROJCTIONS ETC AND PARTS	4,153,543	1,415,828	-2,737,715	-65.91	1.73
34 741021	COPPER FOIL, NOV.15MM THICK, BACKED, REFIN COPPER	5,111,479	2,463,885	-2,647,594	-51.80	30.08
34 821210	RAZORS	3,689,937	1,311,359	-2,378,578	-64.46	64.55
SPECIAL CLASSIFICATION PROVISIONS, NSPF						
99 852431	LASER DISCS, FOR REPRODUCING OTHER THAN SOUND/IMAGE	13,809,465	6,040,215	-7,769,250	-56.26	11.12
99 852491	OHTR RECORDED MEDIA, NESOI, FOR REPROD OTHR THAN S/I	2,647,146	1,882,016	-765,130	-28.90	5.38
99 852453*	MAGNETIC TAPE, SND OR IMAGE, RECORDED, OVR 6.5MM WIDE	239,499	86,826	-152,673	-63.75	12.81
LEATHER AND LEATHER PRODUCTS						
31 640399	FOOTWEAR, OUTER SOLE RUB ETC & LEATHER UPPER NESOI	1,503,100	350,685	-1,152,415	-76.67	45.90
31 420219	TRUNKS, SUITCASES, VANITY CASES ETC, NESOI	526,272	25,993	-500,279	-95.06	0.30
31 410439	BOVINE & EQUINE LEATHER NESOI, PREPRD AFTR TANNING	242,570	3,600	-238,970	-98.52	0.23
PRINTING AND PUBLISHING						
27 490199	PRINTED BOOKS, BROCHURES, ETC., NESOI	4,939,666	3,062,739	-1,876,927	-38.00	8.52
27 491110	TRADE ADVERTISING MATERIAL, COMMERCIAL CATALOG ETC	469,523	258,871	-210,652	-44.87	3.23
27 482340	ROLL/SHEET/DIAL PRINTED FR SELF-RECORDNG APPR, PPR	39,384	0	-39,384	-100.00	0.00
RUBBER AND MISC. PLASTICS PRODUCTS						
30 590699	RUBBERIZED TEXT FABRIC NESOI, NOT KNIT OR CROCHET	6,879,642	5,717,855	-1,161,787	-16.89	91.79
30 391731	FLEXIBLE TUBES, PIPES ETC, MIN BURST PRES 27.6 MPA	2,645,131	1,537,914	-1,107,217	-41.86	65.29
30 392062	PLATES ETC, NONCELL ETC, POLYETHYLENE TEREPHTHALATE	2,272,364	1,214,267	-1,058,097	-46.56	5.60

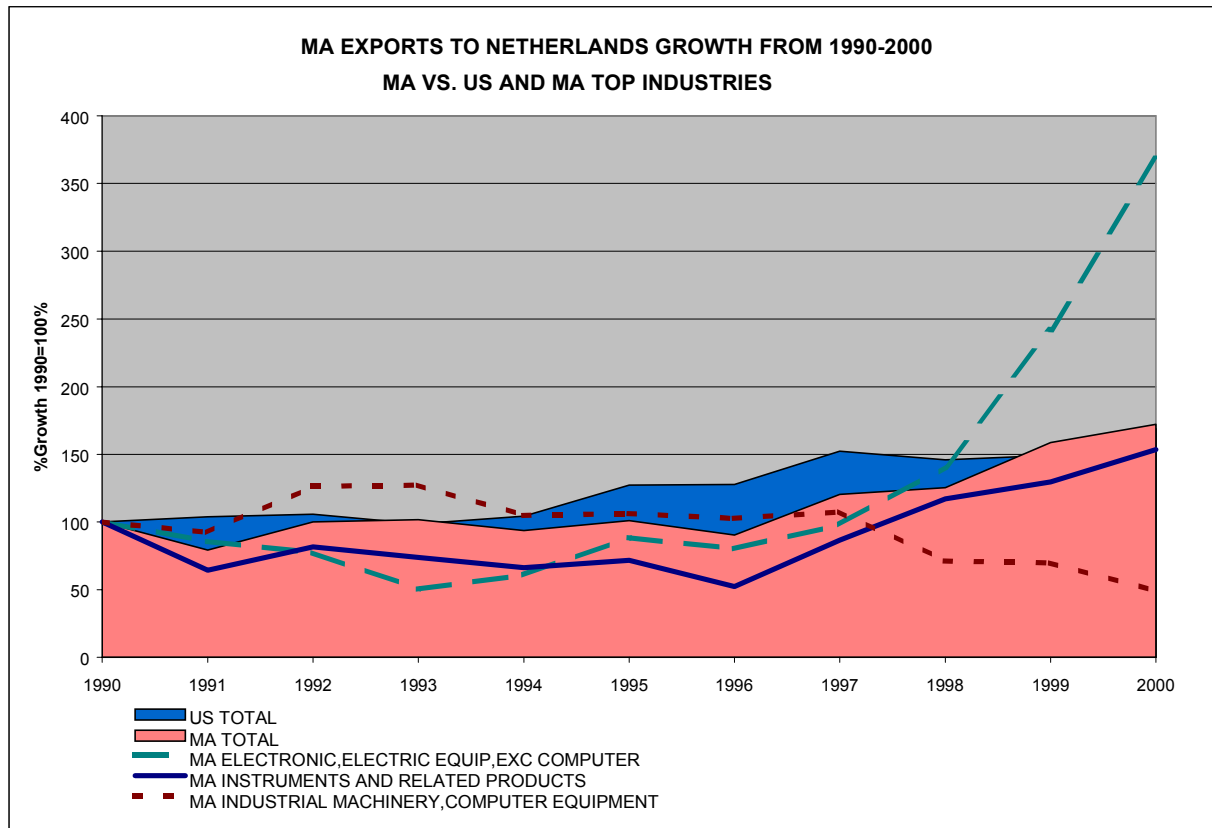
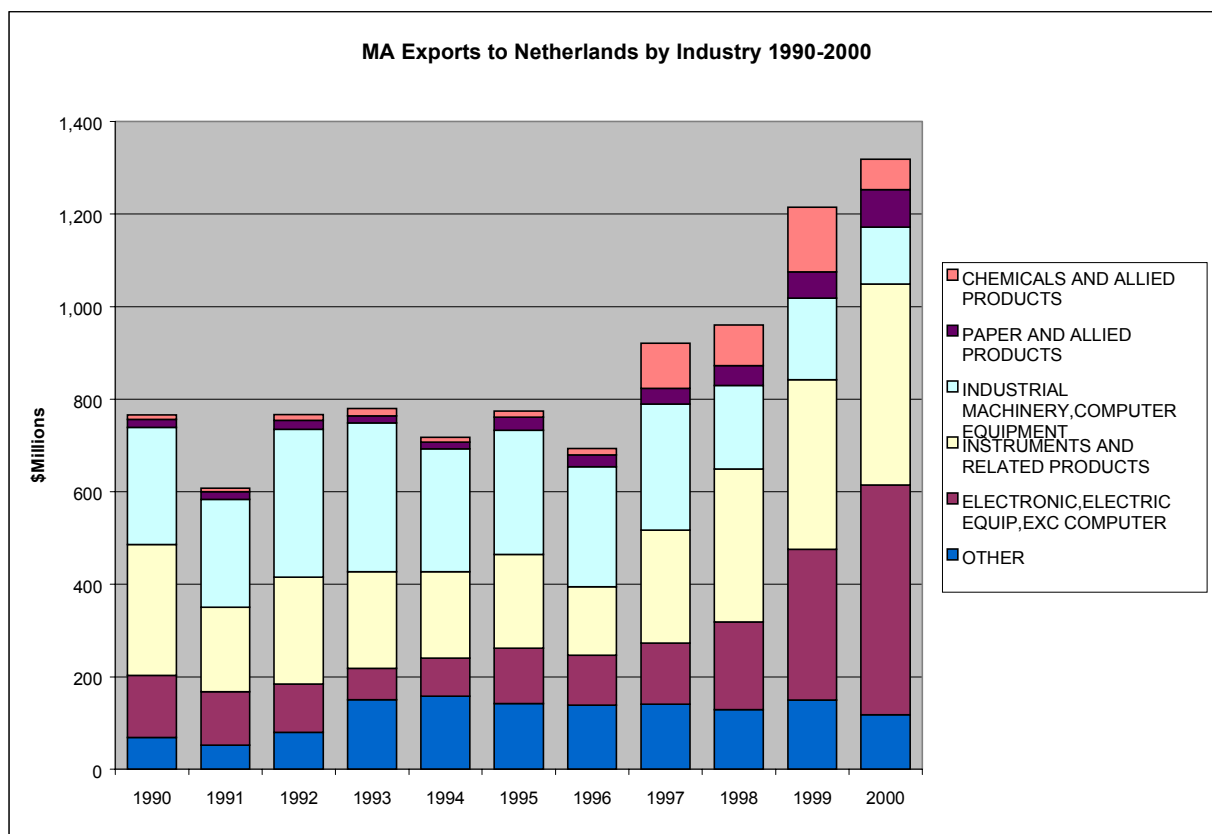
*This 6-digit HS commodity is comprised of 10-digit commodities that map to more than one 2-digit SIC.

MA Exports to Germany by Commodity
Leading Commodities by \$Value, Growth, Loss of Shipments

RANK	HS 6	TOP 20 COMMODITIES	1999	2000	INCR 99-00	%INCR	%US
1	851790	PT ELECT APPR F LINE TELEPHONY OR TELEGRAPHY ETC.	77,683,771	148,945,795	71,262,024	91.73	56.20
2	847330	PARTS & ACCESSORIES FOR ADP MACHINES & UNITS	44,639,052	57,100,390	12,461,338	27.92	3.27
3	901819	ELECTRO-DIAGNOSTIC APPARATUS NESOI, AND PARTS ETC.	71,773,308	56,916,957	-14,856,351	-20.70	15.48
4	854311	PARTICLE ACCELERATORS,ION IMPLANTERS FOR SMCNDCTRS	13,308,210	39,932,662	26,624,452	200.06	89.66
5	854219	MONOLITHIC INTEGRATED CIRCUITS, DIGITAL, NESOI	21,012,115	36,669,003	15,656,888	74.51	59.34
6	903082	INST TO CHECK SEMICONDUCT WAFERS &SUCH THAT RECORD	14,060,707	33,533,335	19,472,628	138.49	33.09
7	851840	AUDIO-FREQUENCY ELECTRIC AMPLIFIERS	2,389,494	32,926,981	30,537,487	1,277.99	56.11
8	300220	VACCINES FOR HUMAN MEDICINE	117,442	28,406,006	28,288,564	24,087.26	46.47
9	382200	COMPOSITE DIAGNOSTIC/LAB REAGENTS, EXC PHARMACEUT	7,529,366	26,997,623	19,468,257	258.56	5.54
10	851730	TELEPHONIC OR TELEGRAPHIC SWITCHING APPARATUS	35,402,494	26,570,030	-8,832,464	-24.95	41.39
11	300210	ANTISERA AND BLOOD FRACTIONS, IMMUN PRODUCTS	17,377,077	23,934,926	6,557,849	37.74	14.62
12	901890	INSTR & APPL F MEDICAL SURGICAL DENTAL VET, NESOI	22,396,100	23,376,177	980,077	4.38	10.43
13	722020	FLAT-ROLLED STNLS STL UND 600MM WIDE, CLD-RLD	7,455,413	23,089,364	15,633,951	209.70	78.98
14	847149	DIGITAL ADP MAC & UNITS,ENTERED AS SYSTEMS, NESOI	11,825,785	22,903,945	11,078,160	93.68	10.40
15	851822	MULTIPLE LOUDSPEAKERS, MOUNTED IN SAME ENCLOSURE	1,556,520	20,925,458	19,368,938	1,244.37	76.30
16	854213	METAL OXIDE SEMICONDUCTORS(MOS),MONO DIGITAL INTEG	20,098,003	19,479,037	-618,966	-3.08	2.97
17	847990	PTS OF MACH/MECHNCL APPL W INDVDUL FUNCTION NESOI	7,959,048	19,095,076	11,136,028	139.92	9.74
18	847180	AUTOMATIC DATA PROCESSING UNITS, N.E.S.O.I.	24,164,713	17,911,166	-6,253,547	-25.88	4.70
19	847190	ADP MAC&UNTS THEREOF;MAG/OPT RDER,TRNSCRB,PROC DAT	7,767,512	17,373,531	9,606,019	123.67	19.77
20	851829	LOUDSPEAKERS, NESOI	1,069,458	16,163,908	15,094,450	1,411.41	68.16
RANK	HS 6	TOP 10 COMMODITY GAINS	1999	2000	INCR 99-00	%INCR	%US
1	851790	PT ELECT APPR F LINE TELEPHONY OR TELEGRAPHY ETC.	77,683,771	148,945,795	71,262,024	91.73	56.20
2	851840	AUDIO-FREQUENCY ELECTRIC AMPLIFIERS	2,389,494	32,926,981	30,537,487	1,277.99	56.11
3	300220	VACCINES FOR HUMAN MEDICINE	117,442	28,406,006	28,288,564	24,087.26	46.47
4	854311	PARTICLE ACCELERATORS,ION IMPLANTERS FOR SMCNDCTRS	13,308,210	39,932,662	26,624,452	200.06	89.66
5	903082	INST TO CHECK SEMICONDUCT WAFERS &SUCH THAT RECORD	14,060,707	33,533,335	19,472,628	138.49	33.09
6	382200	COMPOSITE DIAGNOSTIC/LAB REAGENTS, EXC PHARMACEUT	7,529,366	26,997,623	19,468,257	258.56	5.54
7	851822	MULTIPLE LOUDSPEAKERS, MOUNTED IN SAME ENCLOSURE	1,556,520	20,925,458	19,368,938	1,244.37	76.30
8	854219	MONOLITHIC INTEGRATED CIRCUITS, DIGITAL, NESOI	21,012,115	36,669,003	15,656,888	74.51	59.34
9	722020	FLAT-ROLLED STNLS STL UND 600MM WIDE, CLD-RLD	7,455,413	23,089,364	15,633,951	209.70	78.98
10	851829	LOUDSPEAKERS, NESOI	1,069,458	16,163,908	15,094,450	1,411.41	68.16
HS 6	TOP 10 COMMODITY LOSSES		1999	2000	INCR 99-00	%INCR	%US
1	901819	ELECTRO-DIAGNOSTIC APPARATUS NESOI, AND PARTS ETC.	71,773,308	56,916,957	-14,856,351	-20.70	15.48
2	902610	INST & APPRTS, MEASURE/CHECKING FLOW/LEVEL OF LIQ	15,146,825	2,847,051	-12,299,774	-81.20	16.33
3	852313	MAGNETIC TAPE UNRECORDED WIDTH EXCEEDING 6.5 MM	12,353,774	309,448	-12,044,326	-97.50	10.56
4	846692	PARTS FOR MACHINES OF HEADING 8465	18,758,935	7,354,329	-11,404,606	-60.80	59.76
5	851730	TELEPHONIC OR TELEGRAPHIC SWITCHING APPARATUS	35,402,494	26,570,030	-8,832,464	-24.95	41.39
6	903089	INST,MEASURING/CHECKING ELECTRICAL QUANTITIE,NESOI	22,905,932	14,705,298	-8,200,634	-35.80	29.58
7	852431	LASER DISCS,FOR REPRODUCING OTHER THAN SOUND/IMAGE	13,809,465	6,040,215	-7,769,250	-56.26	11.12
8	847180	AUTOMATIC DATA PROCESSING UNITS, N.E.S.O.I.	24,164,713	17,911,166	-6,253,547	-25.88	4.70
9	901812	ULTRASONIC SCANNING APPARATUS	16,346,473	11,379,029	-4,967,444	-30.39	16.80
10	851750	TELECOMM APPRTUS,CARRIER-CUR & DIGITAL SYSTM,NESOI	7,257,725	3,242,998	-4,014,727	-55.32	3.33

Massachusetts Exports to Netherlands by Industry 1999-2000
Leading Industries by \$Value, Growth, Loss of Shipments

RANK TOP 20 INDUSTRIES		1999	2000	%98-99	%99-00	\$Incr 99-00	%US
TOTAL ALL INDUSTRIES		1,214,536,978	1,318,605,886	26.46	8.57	104,068,908	6.00
1	ELECTRONIC,ELECTRIC EQUIP,EXC COMPUTER	325,661,318	495,849,718	71.87	52.26	170,188,400	18.47
2	INSTRUMENTS AND RELATED PRODUCTS	366,781,437	434,312,822	10.71	18.41	67,531,385	18.49
3	INDUSTRIAL MACHINERY,COMPUTER EQUIPMENT	176,636,571	123,564,571	-1.95	-30.05	-53,072,000	1.94
4	PAPER AND ALLIED PRODUCTS	56,400,225	80,762,975	31.13	43.20	24,362,750	18.88
5	CHEMICALS AND ALLIED PRODUCTS	139,328,502	65,790,282	58.81	-52.78	-73,538,220	1.73
6	RUBBER AND MISC. PLASTICS PRODUCTS	74,949,752	40,017,493	51.25	-46.61	-34,932,259	12.46
7	SPECIAL CLASSIFICATION PROVISIONS, NSPF	20,692,395	18,473,829	550.99	-10.72	-2,218,566	10.17
8	PRINTING AND PUBLISHING	7,948,800	8,275,675	15.68	4.11	326,875	6.37
9	STONE, CLAY, AND GLASS PRODUCTS	6,257,451	8,229,800	-11.79	31.52	1,972,349	12.22
10	FABRICATED METAL PRODUCTS	11,529,357	8,000,131	-33.39	-30.61	-3,529,226	4.00
11	FOOD AND KINDRED PRODUCTS	2,122,561	7,683,852	32.71	262.01	5,561,291	1.21
12	USED OR SECOND-HAND MERCHANDISE	747,457	6,466,367	-94.17	765.12	5,718,910	7.67
13	MISC. MANUFACTURING INDUSTRIES	6,642,348	3,576,007	-26.63	-46.16	-3,066,341	1.84
14	TRANSPORTATION EQUIPMENT	3,251,601	2,506,714	15.34	-22.91	-744,887	0.11
15	PRIMARY METAL INDUSTRIES	1,763,222	2,412,282	-52.26	36.81	649,060	0.55
16	FISHING, HUNTING, AND TRAPPING	2,843,563	2,395,453	-26.72	-15.76	-448,110	11.35
17	TEXTILE MILL PRODUCTS	2,150,921	2,093,905	-30.88	-2.65	-57,016	3.80
18	LEATHER AND LEATHER PRODUCTS	1,011,086	1,715,756	-40.73	69.69	704,670	6.71
19	APPAREL AND OTHER TEXTILE PRODUCTS	1,523,382	1,610,547	11.87	5.72	87,165	3.77
20	SCRAP AND WASTE	608,505	1,357,793	25.85	123.14	749,288	6.12
RANK TOP 10 GROWTH INDUSTRIES		1999	2000	%98-99	%99-00	\$Incr 99-00	%US
1	ELECTRONIC,ELECTRIC EQUIP,EXC COMPUTER	325,661,318	495,849,718	71.87	52.26	170,188,400	18.47
2	INSTRUMENTS AND RELATED PRODUCTS	366,781,437	434,312,822	10.71	18.41	67,531,385	18.49
3	PAPER AND ALLIED PRODUCTS	56,400,225	80,762,975	31.13	43.20	24,362,750	18.88
4	USED OR SECOND-HAND MERCHANDISE	747,457	6,466,367	-94.17	765.12	5,718,910	7.67
5	FOOD AND KINDRED PRODUCTS	2,122,561	7,683,852	32.71	262.01	5,561,291	1.21
6	STONE, CLAY, AND GLASS PRODUCTS	6,257,451	8,229,800	-11.79	31.52	1,972,349	12.22
7	SCRAP AND WASTE	608,505	1,357,793	25.85	123.14	749,288	6.12
8	LEATHER AND LEATHER PRODUCTS	1,011,086	1,715,756	-40.73	69.69	704,670	6.71
9	PRIMARY METAL INDUSTRIES	1,763,222	2,412,282	-52.26	36.81	649,060	0.55
10	PRINTING AND PUBLISHING	7,948,800	8,275,675	15.68	4.11	326,875	6.37
RANK TOP 10 LOSSES BY INDUSTRY		1999	2000	%98-99	%99-00	\$Incr 99-00	%US
1	CHEMICALS AND ALLIED PRODUCTS	139,328,502	65,790,282	58.81	-52.78	-73,538,220	1.73
2	INDUSTRIAL MACHINERY,COMPUTER EQUIPMENT	176,636,571	123,564,571	-1.95	-30.05	-53,072,000	1.94
3	RUBBER AND MISC. PLASTICS PRODUCTS	74,949,752	40,017,493	51.25	-46.61	-34,932,259	12.46
4	FABRICATED METAL PRODUCTS	11,529,357	8,000,131	-33.39	-30.61	-3,529,226	4.00
5	MISC. MANUFACTURING INDUSTRIES	6,642,348	3,576,007	-26.63	-46.16	-3,066,341	1.84
6	SPECIAL CLASSIFICATION PROVISIONS, NSPF	20,692,395	18,473,829	550.99	-10.72	-2,218,566	10.17
7	FURNITURE AND FIXTURES	2,825,985	1,053,785	136.39	-62.71	-1,772,200	2.21
8	TRANSPORTATION EQUIPMENT	3,251,601	2,506,714	15.34	-22.91	-744,887	0.11
9	FISHING, HUNTING, AND TRAPPING	2,843,563	2,395,453	-26.72	-15.76	-448,110	11.35
10	LUMBER AND WOOD PRODUCTS	899,142	480,502	47.25	-46.56	-418,640	0.77



MA Export Industries to Netherlands by Leading Commodity Components
Top 10 Industries Sorted by \$Value 2000

SIC HS 6	TOP 10 INDUSTRIES	1999	2000	INCR 99-00	%INCR	% OF US
ELECTRONIC,ELECTRIC EQUIP,EXC COMPUTER						
36 851790	PT ELECT APPR F LINE TELEPHONY OR TELEGRAPHY ETC.	186,903,111	324,590,332	137,687,221	73.67	55.68
36 851730	TELEPHONIC OR TELEGRAPHIC SWITCHING APPARATUS	23,417,205	28,798,948	5,381,743	22.98	43.99
36 851750	TELECOMM APPRTUS,CARRIER-CUR & DIGITAL SYSTM,NESOI	33,383,958	24,470,128	-8,913,830	-26.70	11.28
INSTRUMENTS AND RELATED PRODUCTS						
38 901839	MED NEEDLES. NESOI, CATHERERS ETC AND PARTS ETC	132,840,178	177,612,767	44,772,589	33.70	50.11
38 370241	PHOT FILM NO SPROCKET HOLES,OV 610MM& OV 200MM CLR	28,764,846	56,616,012	27,851,166	96.82	99.85
38 903089	INST,MEASURING/CHECKING ELECTRICAL QUANTITIE,NESOI	9,002,878	22,260,102	13,257,224	147.26	81.06
INDUSTRIAL MACHINERY,COMPUTER EQUIPMENT						
35 847330	PARTS & ACCESSORIES FOR ADP MACHINES & UNITS	70,620,401	25,499,141	-45,121,260	-63.89	1.04
35 847180	AUTOMATIC DATA PROCESSING UNITS, N.E.S.O.I.	28,554,460	19,034,911	-9,519,549	-33.34	2.20
35 854311	PARTICLE ACCELERATORS,ION IMPLANTERS FOR SMCNDCTRS	6,576,243	12,239,736	5,663,493	86.12	100.00
PAPER AND ALLIED PRODUCTS						
26 480252	PAPER NESOI, NOV 10% FIB MECH PR, 40G/M2NOV150G/M2	18,039,532	27,789,532	9,750,000	54.05	89.33
26 480251	PAPER NESOI, NOV 10% FIBER BY MECH PR, UN40G/M2 UC	4,155,438	26,105,756	21,950,318	528.23	99.63
26 391990	PLATES, SHEETS, FILM ETC, PLASTICS, SELF-ADH NESOI	7,182,125	8,557,443	1,375,318	19.15	31.13
CHEMICALS AND ALLIED PRODUCTS						
28 300439	HORMONES ETC. (NO ANTIBIOTICS CONTAINED) DOSAGE FM	123,522,736	33,328,602	-90,194,134	-73.02	99.93
28 280300	CARBON, NESOI (INCLUDING CARBON BLACK)	3,362	11,680,497	11,677,135	347,327.04	48.24
28 382200	COMPOSITE DIAGNOSTIC/LAB REAGENTS, EXC PHARMACEUT	968,195	2,670,124	1,701,929	175.78	1.40
RUBBER AND MISC. PLASTICS PRODUCTS						
30 392069	PLATES ETC, NONCELL ETC, NO REIN, POLYESTERS NESOI	48,081,318	21,362,696	-26,718,622	-55.57	82.04
30 392690*	ARTICLES OF PLASTICS, NESOI	13,862,510	10,312,839	-3,549,671	-25.61	17.82
30 392062	PLATES ETC, NONCELL ETC, POLYETHYLENE TEREPHTHATE	1,795,571	2,762,889	967,318	53.87	23.87
SPECIAL CLASSIFICATION PROVISIONS, NSPF						
99 980110	VALUE OF REPAIR/ALTER ARTICLES PREVIOUS IMPORTED	6,276,922	10,699,262	4,422,340	70.45	17.76
99 852491	OHTR RECORDED MEDIA,NESOI,FOR REPROD OTHR THAN S/I	4,696,835	2,333,566	-2,363,269	-50.32	7.11
99 852431	LASER DISCS,FOR REPRODUCING OTHER THAN SOUND/IMAGE	4,924,898	2,207,158	-2,717,740	-55.18	5.92
PRINTING AND PUBLISHING						
27 392690*	ARTICLES OF PLASTICS, NESOI	13,862,510	10,312,839	-3,549,671	-25.61	17.82
27 490199	PRINTED BOOKS, BROCHURES, ETC., NESOI	6,844,440	6,595,677	-248,763	-3.63	10.80
27 491110	TRADE ADVERTISING MATERIAL, COMMERCIAL CATALOG ETC	502,673	632,657	129,984	25.86	13.98
STONE, CLAY, AND GLASS PRODUCTS						
32 690320	OTH REFRAC CERAM GDS NES ALUMINA/SILICA OV 50 PCT	1,082,716	2,700,756	1,618,040	149.44	96.78
32 680530	ABRASIVES ON A BASE MATERIAL OTH THN FABRC O PAPER	1,639,184	1,449,428	-189,756	-11.58	42.55
32 680421	OTH MLLSTNS ETC OF AGGLM SYNTHTC OR NAT DIAMOND	1,278,967	1,364,897	85,930	6.72	62.86
FABRICATED METAL PRODUCTS						
34 841950	HEAT EXCHANGE UNITS, INDUSTRIAL TYPE	1,295,986	1,750,031	454,045	35.03	32.27
34 760720	ALUMINUM FOIL NOT OVER 0.2MM THICK, BACKED	596,860	804,227	207,367	34.74	56.27
34 321210	STAMPING FOILS	406,214	695,473	289,259	71.21	49.98

*This 6-digit HS commodity is comprised of 10-digit commodities that map to more than one 2-digit SIC.

MA Export Industries to Netherlands by Leading Commodity Components
Top 5 Growth and Loss Industries 1999-2000

SIC HS 6	TOP 5 GROWTH INDUSTRIES	1999	2000	INCR 99-00	%INCR	% OF US
ELECTRONIC,ELECTRIC EQUIP,EXC COMPUTER						
36 851790	PT ELECT APPR F LINE TELEPHONY OR TELEGRAPHY ETC.	186,903,111	324,590,332	137,687,221	73.67	55.68
36 854390	PT ELEC MACH & APPR W INDIVIDUAL FUNCTIONS, NESOI	3,016,418	12,916,209	9,899,791	328.20	37.66
36 850630	PRIMARY CELLS AND BATTERIES, MERCURIC OXIDE	0	9,509,743	9,509,743	NA	99.47
INSTRUMENTS AND RELATED PRODUCTS						
38 901839	MED NEEDLES. NESOI, CATHERERS ETC AND PARTS ETC	132,840,178	177,612,767	44,772,589	33.70	50.11
38 370241	PHOT FILM NO SPROCKET HOLES,OV 610MM& OV 200MM CLR	28,764,846	56,616,012	27,851,166	96.82	99.85
38 903089	INST,MEASURING/CHECKING ELECTRICAL QUANTITIE,NESOI	9,002,878	22,260,102	13,257,224	147.26	81.06
PAPER AND ALLIED PRODUCTS						
26 480251	PAPER NESOI, NOV 10% FIBER BY MECH PR, UN40G/M2 UC	4,155,438	26,105,756	21,950,318	528.23	99.63
26 480252	PAPER NESOI, NOV 10% FIB MECH PR, 40G/M2NOV150G/M2	18,039,532	27,789,532	9,750,000	54.05	89.33
26 481011	PAPER, WRIT ETC, NOV 10% MECH PR FIB NOV150G/M2 CT	371,147	3,099,808	2,728,661	735.20	61.58
USED OR SECOND-HAND MERCHANDISE						
92 970110	PAINTINGS, DRAWING AND PASTELS BY HAND	582,955	5,483,638	4,900,683	840.66	10.59
92 970200	ORIGINAL ENGRAVINGS, PRINTS & LITHOGRAPHS	7,750	320,000	312,250	4,029.03	26.80
92 401220	USED PNEUMATIC TIRES OF RUBBER	0	18,000	18,000	NA	4.70
FOOD AND KINDRED PRODUCTS						
20 220290	NONALCOHOLIC BEVERAGES, NESOI	198,118	5,347,191	5,149,073	2,598.99	93.29
20 200899	FRUIT & EDIBLE PLANT PARTS NESOI, PREP ETC. NESOI	0	1,163,934	1,163,934	NA	94.02
20 200920	GRAPEFRUIT JUICE, SWEETENED OR NOT	0	179,078	179,078	NA	0.89
SIC HS 6	TOP 5 INDUSTRY LOSSES	1999	2000	INCR 99-00	%INCR	% OF US
CHEMICALS AND ALLIED PRODUCTS						
28 300439	HORMONES ETC. (NO ANTIBIOTICS CONTAINED) DOSAGE FM	123,522,736	33,328,602	-90,194,134	-73.02	99.93
28 330710	PRE-SHAVE, SHAVING OR AFTER-SHAVE PREPARATIONS	754,949	0	-754,949	-100.00	0.00
28 284210	DOUBLE OR COMPLEX SILICATES	662,501	0	-662,501	-100.00	0.00
INDUSTRIAL MACHINERY,COMPUTER EQUIPMENT						
35 847330	PARTS & ACCESSORIES FOR ADP MACHINES & UNITS	70,620,401	25,499,141	-45,121,260	-63.89	1.04
35 847180	AUTOMATIC DATA PROCESSING UNITS, N.E.S.O.I.	28,554,460	19,034,911	-9,519,549	-33.34	2.20
35 847160	ADP INPUT OR OUTPUT UNITS, STORAGE OR NOT, NESOI	8,472,318	129,183	-8,343,135	-98.48	0.07
RUBBER AND MISC. PLASTICS PRODUCTS						
30 392069	PLATES ETC, NONCELL ETC, NO REIN, POLYESTERS NESOI	48,081,318	21,362,696	-26,718,622	-55.57	82.04
30 392690*	ARTICLES OF PLASTICS, NESOI	13,862,510	10,312,839	-3,549,671	-25.61	17.82
30 392119	PLATES, SHEETS ETC. NESOI, CELLULAR PLASTIC NESOI	1,799,768	0	-1,799,768	-100.00	0.00
FABRICATED METAL PRODUCTS						
34 821210	RAZORS	3,097,652	5,814	-3,091,838	-99.81	22.79
34 730890	STRUCTURES AND PARTS NESOI OF IRON OR STEEL	1,033,566	43,521	-990,045	-95.79	2.63
34 820730*	TOOLS FOR PRESSING, STAMPING OR PUNCHING, B M PTS	455,093	12,013	-443,080	-97.36	0.46
MISC. MANUFACTURING INDUSTRIES						
39 392690*	ARTICLES OF PLASTICS, NESOI	13,862,510	10,312,839	-3,549,671	-25.61	17.82
39 711719	OTH IMITATION JEWELRY, BASE METAL, INC PR MTL PLTD	3,325,979	378,266	-2,947,713	-88.63	15.70
39 902000*	BREATHING APPLIANCES & GAS MASKS NESOI; PARTS ETC	964,195	209,260	-754,935	-78.30	5.51

*This 6-digit HS commodity is comprised of 10-digit commodities that map to more than one 2-digit SIC.

MA Exports to Netherlands by Commodity
Leading Commodities by \$Value, Growth, Loss of Shipments

RANK	HS 6	TOP 20 COMMODITIES	1999	2000	INCR 99-00	%INCR	%US
1	851790	PT ELECT APPR F LINE TELEPHONY OR TELEGRAPHY ETC.	186,903,111	324,590,332	137,687,221	73.67	55.68
2	901839	MED NEEDLES. NESOI, CATHERERS ETC AND PARTS ETC	132,840,178	177,612,767	44,772,589	33.70	50.11
3	370241	PHOT FILM NO SPROCKET HOLES,OV 610MM& OV 200MM CLR	28,764,846	56,616,012	27,851,166	96.82	99.85
4	300439	HORMONES ETC. (NO ANTIBIOTICS CONTAINED) DOSAGE FM	123,522,736	33,328,602	-90,194,134	-73.02	99.93
5	851730	TELEPHONIC OR TELEGRAPHIC SWITCHING APPARATUS	23,417,205	28,798,948	5,381,743	22.98	43.99
6	480252	PAPER NESOI, NOV 10% FIB MECH PR, 40G/M2NOV150G/M2	18,039,532	27,789,532	9,750,000	54.05	89.33
7	480251	PAPER NESOI, NOV 10% FIBER BY MECH PR, UN40G/M2 UC	4,155,438	26,105,756	21,950,318	528.23	99.63
8	847330	PARTS & ACCESSORIES FOR ADP MACHINES & UNITS	70,620,401	25,499,141	-45,121,260	-63.89	1.04
9	851750	TELECOMM APPRTUS,CARRIER-CUR & DIGITAL SYSTM,NESOI	33,383,958	24,470,128	-8,913,830	-26.70	11.28
10	903089	INST,MEASURING/CHECKING ELECTRICAL QUANTITIE,NESOI	9,002,878	22,260,102	13,257,224	147.26	81.06
11	900691	PARTS AND ACCESSORIES FOR STILL PHOTO CAMERAS	53,175,294	21,624,905	-31,550,389	-59.33	81.10
12	392069	PLATES ETC, NONCELL ETC, NO REIN, POLYESTERS NESOI	48,081,318	21,362,696	-26,718,622	-55.57	82.04
13	847180	AUTOMATIC DATA PROCESSING UNITS, N.E.S.O.I.	28,554,460	19,034,911	-9,519,549	-33.34	2.20
14	903090	PTS OF INST F MEAS ELECT QUAT ALPHA BETA INZNG RDT	7,805,183	17,838,114	10,032,931	128.54	44.54
15	853649	RELAYS FOR VOLTAGE OVER 60V MORE BUT NT OVER 1000V	12,000,886	17,322,642	5,321,756	44.34	91.85
16	902720	CHROMATOGRAPHS AND ELECTROPHORESIS INSTRUMENTS	15,524,543	15,337,873	-186,670	-1.20	26.15
17	854390	PT ELEC MACH & APPR W INDIVIDUAL FUNCTIONS, NESOI	3,016,418	12,916,209	9,899,791	328.20	37.66
18	370710	CHEMICAL SENSITIZING EMULSIONS FOR PHOTO USES	18,365,479	12,489,909	-5,875,570	-31.99	86.48
19	854311	PARTICLE ACCELERATORS,ION IMPLANTERS FOR SMCNDCTRS	6,576,243	12,239,736	5,663,493	86.12	100.00
20	280300	CARBON, NESOI (INCLUDING CARBON BLACK)	3,362	11,680,497	11,677,135	347,327.04	48.24
RANK	HS 6	TOP 10 COMMODITY GAINS	1999	2000	INCR 99-00	%INCR	%US
1	851790	PT ELECT APPR F LINE TELEPHONY OR TELEGRAPHY ETC.	186,903,111	324,590,332	137,687,221	73.67	55.68
2	901839	MED NEEDLES. NESOI, CATHERERS ETC AND PARTS ETC	132,840,178	177,612,767	44,772,589	33.70	50.11
3	370241	PHOT FILM NO SPROCKET HOLES,OV 610MM& OV 200MM CLR	28,764,846	56,616,012	27,851,166	96.82	99.85
4	480251	PAPER NESOI, NOV 10% FIBER BY MECH PR, UN40G/M2 UC	4,155,438	26,105,756	21,950,318	528.23	99.63
5	903089	INST,MEASURING/CHECKING ELECTRICAL QUANTITIE,NESOI	9,002,878	22,260,102	13,257,224	147.26	81.06
6	280300	CARBON, NESOI (INCLUDING CARBON BLACK)	3,362	11,680,497	11,677,135	347,327.04	48.24
7	903090	PTS OF INST F MEAS ELECT QUAT ALPHA BETA INZNG RDT	7,805,183	17,838,114	10,032,931	128.54	44.54
8	854390	PT ELEC MACH & APPR W INDIVIDUAL FUNCTIONS, NESOI	3,016,418	12,916,209	9,899,791	328.20	37.66
9	480252	PAPER NESOI, NOV 10% FIB MECH PR, 40G/M2NOV150G/M2	18,039,532	27,789,532	9,750,000	54.05	89.33
10	850630	PRIMARY CELLS AND BATTERIES, MERCURIC OXIDE	0	9,509,743	9,509,743	NA	99.47
	HS 6	TOP 10 COMMODITY LOSSES	1999	2000	INCR 99-00	%INCR	%US
1	300439	HORMONES ETC. (NO ANTIBIOTICS CONTAINED) DOSAGE FM	123,522,736	33,328,602	-90,194,134	-73.02	99.93
2	847330	PARTS & ACCESSORIES FOR ADP MACHINES & UNITS	70,620,401	25,499,141	-45,121,260	-63.89	1.04
3	900691	PARTS AND ACCESSORIES FOR STILL PHOTO CAMERAS	53,175,294	21,624,905	-31,550,389	-59.33	81.10
4	392069	PLATES ETC, NONCELL ETC, NO REIN, POLYESTERS NESOI	48,081,318	21,362,696	-26,718,622	-55.57	82.04
5	851719	VIDEOPHONES & OTHER TELEPHONE SETS, N.E.S.O.I.	16,952,661	6,209,757	-10,742,904	-63.37	19.63
6	847180	AUTOMATIC DATA PROCESSING UNITS, N.E.S.O.I.	28,554,460	19,034,911	-9,519,549	-33.34	2.20
7	851750	TELECOMM APPRTUS,CARRIER-CUR & DIGITAL SYSTM,NESOI	33,383,958	24,470,128	-8,913,830	-26.70	11.28
8	847160	ADP INPUT OR OUTPUT UNITS, STORAGE OR NOT, NESOI	8,472,318	129,183	-8,343,135	-98.48	0.07
9	900120	SHEETS AND PLATES OF POLARIZING MATERIAL	7,210,209	139,730	-7,070,479	-98.06	94.16
10	370710	CHEMICAL SENSITIZING EMULSIONS FOR PHOTO USES	18,365,479	12,489,909	-5,875,570	-31.99	86.48

V. MASSACHUSETTS EXPORTS BY WORLD REGION

Table 5

	1999	2000	%98-99	%99-00	%90-00	\$Incr 99-00	%US
WORLD TOTAL	18,190,114,782	22,061,446,586	5.81	21.28	90.40	3,871,331,804	2.83
NORTH AMERICA	4,055,679,980	4,592,681,560	0.02	13.24	91.20	537,001,580	1.59
CANADA	3,376,074,785	3,829,476,382	-4.57	13.43	72.71	453,401,597	2.17
MEXICO	679,304,868	763,000,508	31.60	12.32	313.18	83,695,640	0.68
LATIN AMERICA, CARIBBEAN, NOT MEXICO	617,140,170	666,410,180	-0.90	7.98	118.80	49,270,010	1.12
SOUTH AMERICA	476,734,130	530,219,565	3.80	11.22	151.91	53,485,435	1.43
CENTRAL AMERICA	62,169,183	59,493,941	-19.26	-4.30	128.91	-2,675,242	0.55
CARIBBEAN	78,236,857	76,696,674	-9.56	-1.97	12.63	-1,540,183	0.67
EUROPE	7,330,469,499	8,467,589,812	6.29	15.51	59.00	1,137,120,313	4.52
WESTERN EUROPE	7,197,611,063	8,308,478,203	6.30	15.43	58.22	1,110,867,140	4.58
EUROPEAN UNION	6,930,631,003	8,016,983,298	7.26	15.67	60.01	1,086,352,295	4.86
UNITED KINGDOM	1,921,447,260	2,052,721,106	6.24	6.83	73.56	131,273,846	4.94
GERMANY	1,089,427,404	1,442,274,766	-7.04	32.39	16.81	352,847,362	4.93
NETHERLANDS	1,214,536,978	1,318,605,886	26.46	8.57	72.21	104,068,908	6.00
EASTERN EUROPE	132,858,436	159,111,609	6.03	19.76	336.93	26,253,173	2.59
FORMER SOVIET REPUBLICS	41,297,532	46,486,806	-19.41	12.57	NA	5,189,274	1.29
ASIAN CONTINENT	5,675,459,445	7,782,589,275	10.02	37.13	151.39	2,107,129,830	3.55
JAPAN	1,858,795,221	2,281,393,868	-4.46	22.74	64.32	422,598,647	3.50
ASIA-NICS	2,240,855,658	3,388,949,827	22.29	51.23	212.72	1,148,094,169	4.00
ASEAN	1,262,821,469	1,771,400,966	18.56	40.27	268.21	508,579,497	3.77
ASIA NEAR EAST	448,857,620	414,404,153	33.75	-7.68	90.21	-34,453,467	2.18
ASIA-SOUTH	84,864,639	129,644,275	-11.87	52.77	35.52	44,779,636	2.81
AFRICAN CONTINENT	182,934,351	241,939,294	33.08	32.25	119.36	59,004,943	2.21
SUB-SAHARAN AFRICA	85,661,343	70,849,537	7.76	-17.29	16.47	-14,811,806	1.20
AUSTRALIA AND OCEANIA	328,431,337	310,236,465	2.36	-5.54	-11.00	-18,194,872	2.09

Table 5 compares world regions as destinations for Massachusetts goods in terms of growth over the past decade, growth over past year, and by Massachusetts's share of total US exports to each region. Massachusetts' exports expanded 90.4% to the World from 1990-2000. Over the same period Massachusetts growth was slower to Canada at 73%. Growth was stronger in South America (119%) and in Central America (129%), but very slow in the Caribbean (13%). Growth was slower than average to Western Europe (58%), but very fast to Eastern Europe (337%). Massachusetts' shipments expanded very quickly to Asia (151%), especially to Asia-NICS (212%) and ASEAN countries (268%). Shipments grew rapidly as well to the African Continent (119%), but slowly to Sub-Saharan Africa (16%). Massachusetts' exports decreased 11% in Australia and Oceania from 1990-2000.

From 1999-2000, Bay State exports increased 21% to the World. Growth was strong, but not as strong in Canada (13%), Mexico (12%), South America (11%), and Western Europe (15%). The pace in Eastern Europe was nearly as strong at 20%. Massachusetts' expansion was strongest in Asia (37%), except Near East Asia (-7.7%). Shipments also declined in Central America (-4%), the Caribbean (-2%), and Sub-Saharan Africa (-5.5%). Massachusetts world regions of greatest specialization include Europe (MA ships 4.5% of total US exports), and the European Union (4.9%) in particular, and Asia (3.6%), especially Asia-NICS (4%) and ASEAN countries (3.8%).

Massachusetts vs. World Exports by Region

The following bubble charts compare Massachusetts and World export growth by world region of destination. The 1999 world export statistics in these charts are from the United Nations Statistical Database and are the most current available. Note that 1999 was a year of very slow growth for US exports at 1.8% and that US growth in 2000 was 12.6%. All the charts show World export growth on the Y-axis and Massachusetts' growth along the X-axis. Massachusetts' growth exceeded world growth in countries to the right of the diagonal line through the origin. The size of the bubbles represents the value of export shipments in millions.

Charts 1 and 2 both portray MA and World growth in 1998 and 1999. The difference between the two is that in Chart 1 the area of the circles represents the value of 1999 World shipments, while in Chart 2 the area represents the value of Massachusetts shipments. To Massachusetts and to the World the relative importance of the world regions, as represented by the size of the bubbles, is surprisingly similar. While Canada is a much more important market to Massachusetts than to the World, it is smaller than either Europe or Asia. For most other Northeast states, Canada appears larger than either Europe or Asia or both regions. Asia and Mexico are slightly more important destinations to Massachusetts than to the World. Latin America excluding Mexico is of nearly equal, but relatively small importance to MA and the World.

Massachusetts' growth was positive in Europe in both 1998 and 1999, in Mexico in both years, in Latin America excluding Mexico in 1999, and in Asia in 1999. MA outperformed World growth by small margins in Europe in both years, in Mexico in both years, in Latin America excluding Mexico in 1999, and in Asia in 1998 when MA declines were not as steep as World declines. Massachusetts' increases were not as large as World increases in Canada in both years, in Latin America excluding Mexico in 1998, and in Asia in 1999.

Charts 3, 4, and 5 show MA vs. World export growth from 1998-1999 to selected countries in Latin America, Europe, and Asia. The countries in each region represent the largest destinations for World exports for which UN data was available. The area of the bubbles reflects Massachusetts 1999 shipments in \$millions. In Latin America in 1999 World export growth was positive only in Mexico and Panama, while MA growth was positive in Mexico, Brazil, Argentina, and Peru. Massachusetts growth exceeded World growth in those four countries and in Chile where MA declines were not as large as World declines. World growth was higher than MA growth in Panama and World declines were smaller than MA declines in Costa Rica, Venezuela, and Guatemala. Massachusetts had its best performance in Europe where the state's growth was positive in Netherlands, Spain, France, United Kingdom, Belgium, Italy, and Austria. Massachusetts' growth exceeded World growth in all of those countries. World growth exceeded Massachusetts' growth in Germany, Switzerland, and Sweden. In Asia Massachusetts' exports increased in Malaysia, Korea, Singapore, Thailand, and China. The state outperformed World increases in all of those markets, but China. World growth outperformed Massachusetts' growth in Japan, Philippines, Hong Kong, and Indonesia.

Chart 1

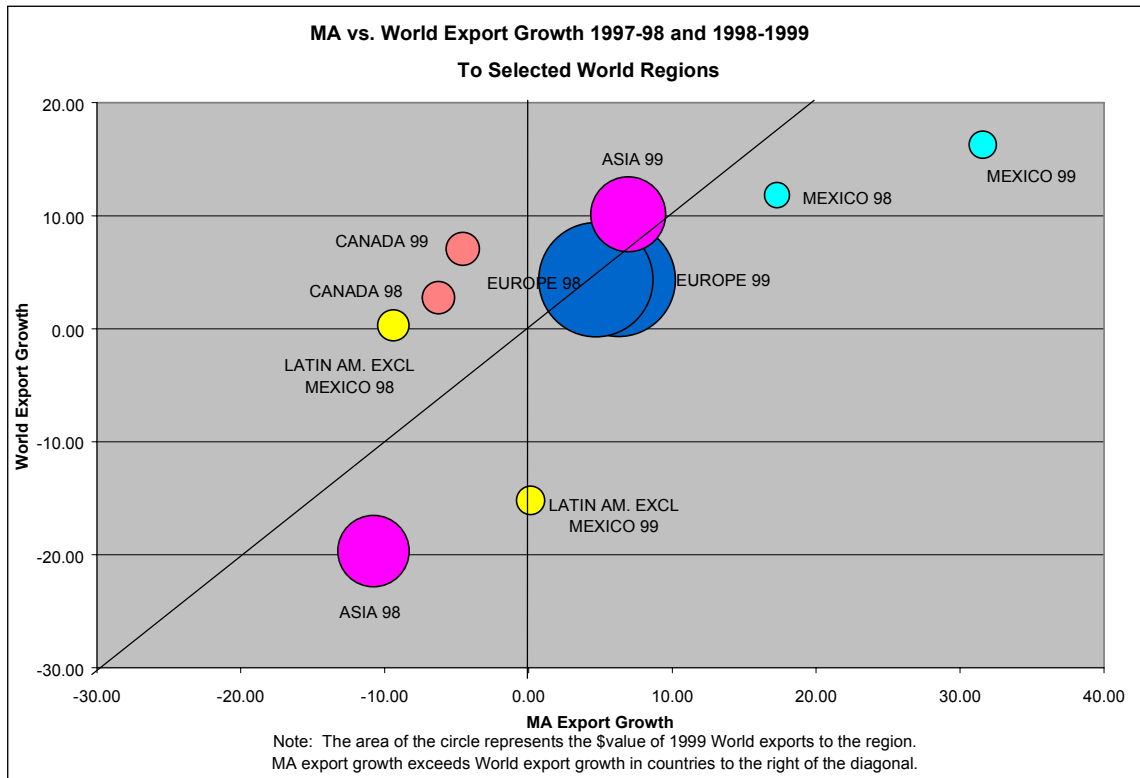


Chart 2

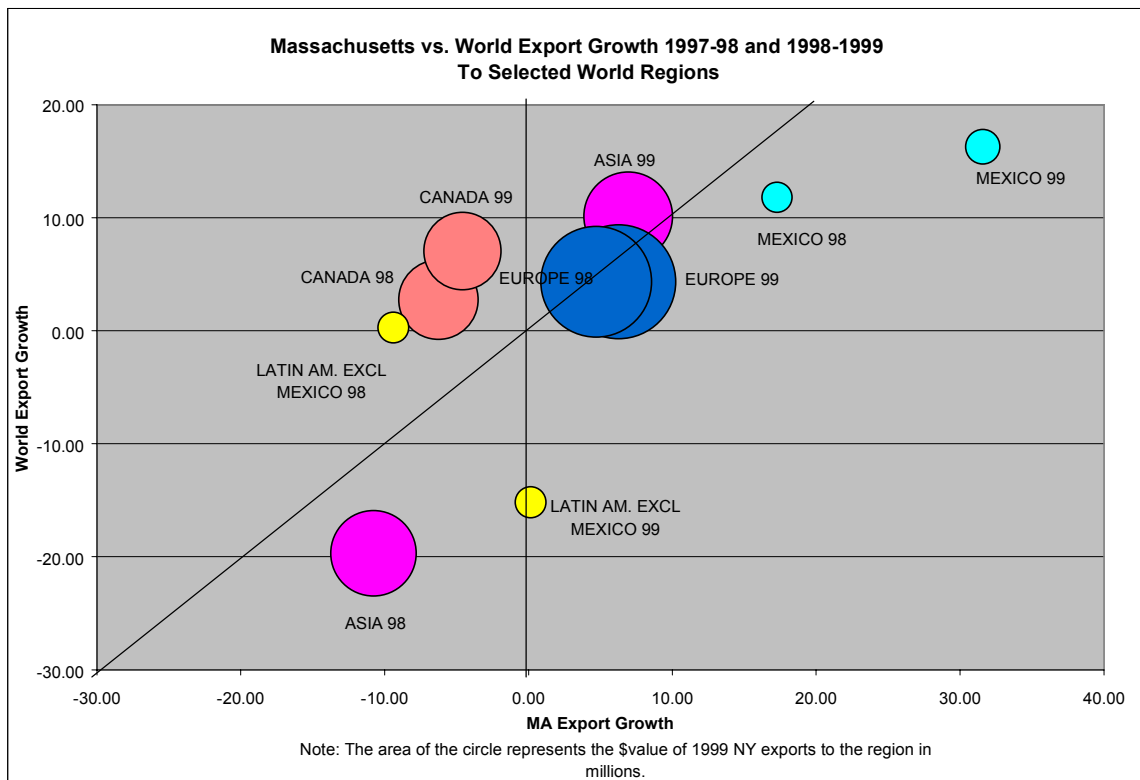


Chart 3

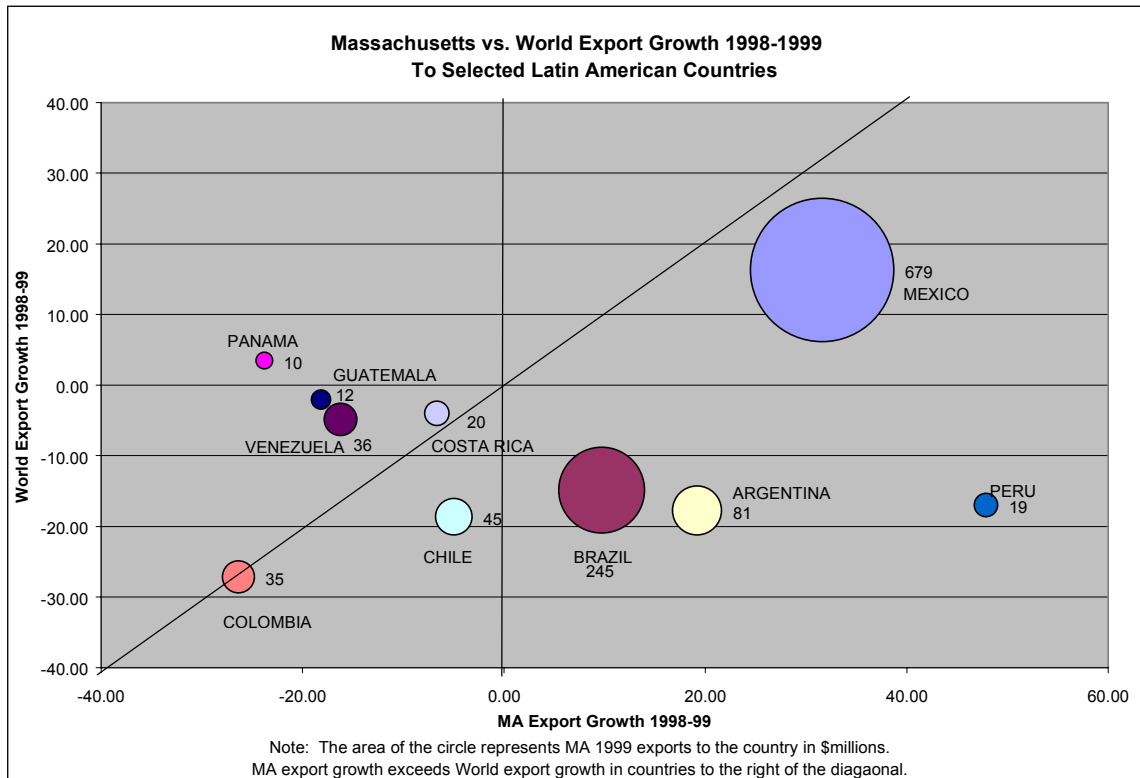


Chart 4

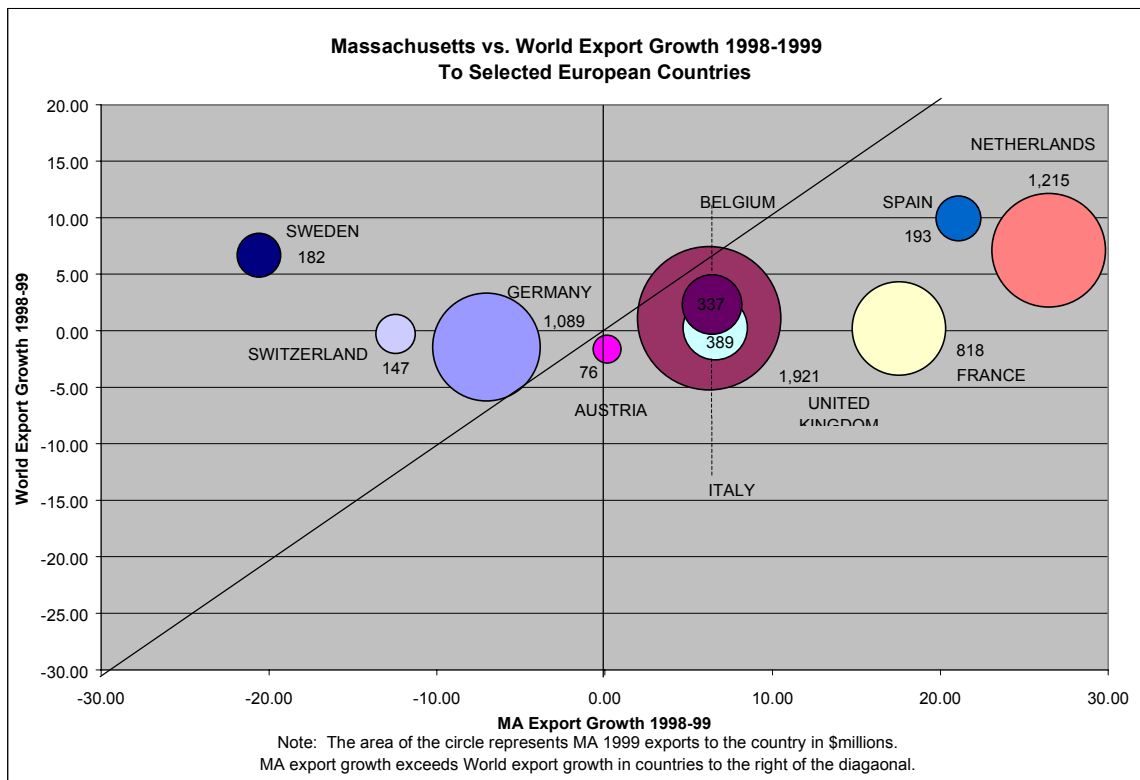
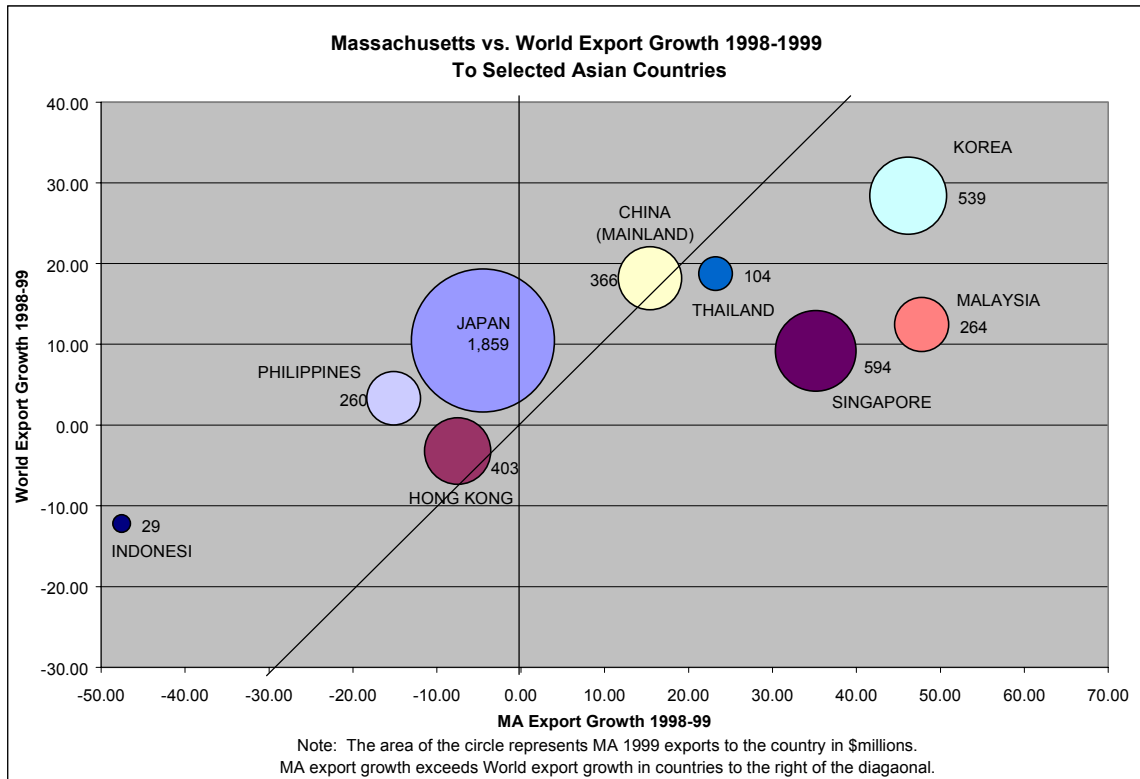


Chart 5



VI. APPENDIX

The Standard Industrial Classification and Harmonized System Data Series

The state export by Standard Industrial Classification (SIC) data series began in 1987. It was the first timely, moderately detailed data ever made available about state exports. The much more detailed state exports by Harmonized System (HS) data was made available for the first time in 1999. HS commodity classification was adopted in 1988 by all the largest exporting and importing countries and has since been adopted in most countries. HS is the basis of the tariff schedule in most countries. SIC differs from HS in that the former is industry-based, while the latter is commodity-based. There are 34 major 2-digit SIC industry groups and 4,500 6-digit HS commodity classifications.

From 1987-2000 MISER improved unadjusted SIC data from Census, which contains records with missing states and industries, by filling in the missing information through an imputation algorithm developed at MISER and approved by Census. MISER does not impute in the state by HS data because with electronic filing of shippers export declarations (SEDs), the numbers of records with missing states to impute is expected to decline rapidly in the next few years. The value MISER imputes has already fallen from 25% of the total value of US exports in 1987 to under 10% in 2000.

There are two different data series for state by SIC data. The “Origin of Movement” (OM) series, which began in 1987, is the one used in this report. The origin of movement, as reported by the exporter on the SED, is the state where the product began its journey to the point of export, the state of consolidation of shipments, the state of greatest value in the case of consolidation of shipments, or the state of a foreign trade zone. That state is not necessarily the state of manufacture or where the product was grown or mined. It may in some cases be the state of a broker or wholesaler or the state of consolidation of shipments. This issue results in some inflation of exports for the major port states and understatement of exports for other states. The problem is most acute for agricultural shipments and less so for manufactured exports. Nevertheless, for manufactured exports the OM series is the closest to state of production origin.

The second state export data series is the Exporter Location (EL) series, introduced by the Census Bureau in 1993. The state of the exporter location is based on the zip code of the exporter filing the SED and reflects the state of sales activity. In many cases the exporter is the manufacturing firm and the exporter location is also the production location. However, exporters also include intermediaries such as wholesalers and brokers or the exporter may be the marketing division of a manufacturing firm. Areas with high export sales activity are likely to support additional economic activity such as warehousing and distribution, financing, shipping, etc. However, in other cases exporters may simply reflect headquarter locations of manufacturers. In addition to providing a second measure of state export activity, the EL series is the source of the US International Trade Administration’s Metropolitan Area Export Database. MISER fills in missing states and industries in the state-level Exporter Location series with the same imputation algorithm it uses for Origin of Movement data, although there are fewer missing states in the Exporter Location series.

The adjusted MISER Origin of Movement and Exporter Location data are generally acknowledged as the best available on state exports. For many years MISER’s data with imputations was distributed by the U.S. Department of Commerce in the National Trade Data

Bank. It is important to understand the value and limitations of each series. Most state export promotion and economic development offices use one or both data series. The state exports by HS series is based on state of origin of movement. There is no state export data by HS available for exporter location.

SIC to HS concordance

The Harmonized System is a hierarchical classification scheme that begins with 99 broad 2-digit commodity groupings called chapters. Each 2-digit chapter is comprised of more detailed 4-digit commodity groupings, which are in turn comprised of even more detailed 6-digit groups, which are finally made up of the most detailed, individual 10-digit commodities. There are 8,000 10-digit HS commodities. At the 10-digit level, each HS code maps to a single 4-digit SIC code. Census uses this concordance to produce state exports by SIC from SED data that contains only HS codes.

The state exports by HS data is reported by Census at a 6-digit level instead of 10-digits to prevent disclosure of data that might identify individual companies. This presents a problem when trying to identify the 6-digit HS commodities which make up a state's 2-digit SIC industries. However, there are a limited number of instances where the 10-digit codes making up a 6-digit code map to more than one 2-digit SIC. In the tables in this report that show the commodity composition of the industries exported, all such instances are identified with an asterisk and footnoted.

Selection of Countries for Bubble Charts; Countries Used in Regional Bubble Chart

The 1999 World export data presented in this report comes from the United Nations Statistical Database and is the most current available. Unfortunately, many countries do not report their trade statistics to the UN. The regional bubble charts were based on data for all the reporting countries listed below.

China, Japan, and Southeast Asia

China
China – Macao
Hong Kong
Indonesia
Japan
Malaysia
Philippines
Singapore
South Korea
Thailand

Europe

Albania	Iceland	Slovakia
Austria	Ireland	Slovenia
Belgium – Luxembourg	Italy	Spain
Croatia	Latvia	Sweden
Czech Republic	Lithuania	Switzerland - Liechtenstein
Denmark	Malta	United Kingdom
Estonia	Netherlands	Yugoslavia
Finland	Norway	
France – Monaco	Poland	
Germany	Portugal	
Greece	Romania	
Hungary	Russian Federation	

Latin America

Argentina	Mexico
Bolivia	Nicaragua
Brazil	Panama
Chile	Paraguay
Colombia	Peru
Costa Rica	Uruguay
Ecuador	Venezuela
El Salvador	
Guatemala	
Honduras	